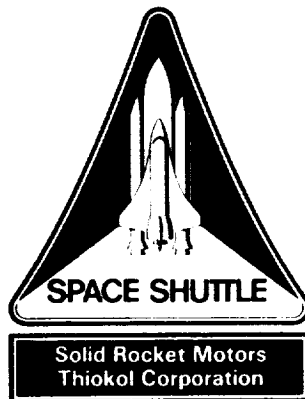


CR-184111

TWR-60834



RSRM Top Hat Cover Simulator Lightning Test Final Report

Volume II — Appendix

July 1990

Prepared for
National Aeronautics and Space Administration
George C. Marshall Space Flight Center
Marshall Space Flight Center, Alabama 35812

Contract No. NAS8-30490
DR No. 5-2 Type 2
WBS No. HQ202-10-12
ECS No. SS 4156

Thiokol CORPORATION
SPACE OPERATIONS

P.O. Box 707, Brigham City, UT 84302-0707 (801) 863-3511

(NASA-CR-184111) RSRM TOP HAT COVER
SIMULATOR LIGHTNING TEST, VOLUME 2, APPENDIX
A: RESISTANCE MEASUREMENTS, APPENDIX B:
LIGHTNING TEST DATA PLOTS Final Report
(Thiokol Corp.) 137 p

CR-184111

Unclas
0333450

CSCL 22B G3/18

Appendix A

Resistance Measurements

REVISION _____

91231.21

DOC NO. TWR-60834

SEC

PAGE

A

VOL

RSRM Top Hat Cover Simulator Lightning Test
Resistance Measurements
(made on 27 June 1990)

<u>Location</u> <u>(deg)</u>	<u>Cover to Handling Ring</u> <u>(microhm)</u>
225	17.0
315	16.0
45	11.0
135	12.0

	<u>Handling Ring</u> <u>to Case (microhm)</u>
225	58.0
315	63.0
45	55.0
135	65.0

	<u>Case to Cover</u> <u>(microhm)</u>
225	62.0
315	64.0
45	37.0
135	55.0

Appendix B

Lightning Test Data Plots

MARX MEASUREMENT: INPUT CURRENT

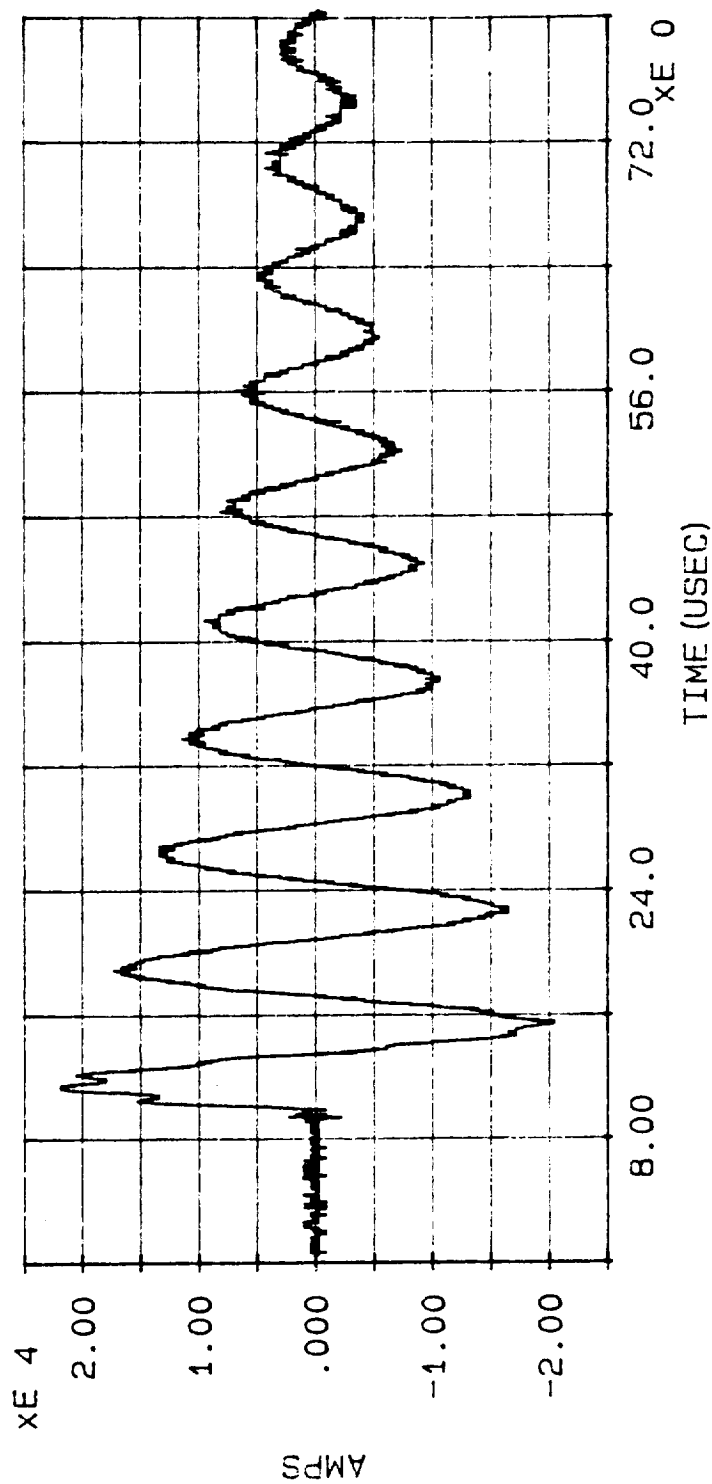
DATE: 06/27/90

TIME: 10:36:11.78

FILE: C:\CAT\DATA6\MI104.TST

MAX CURRENT = 2.255E4

ACTION INTEGRAL = 4.176E3



INJECTION CURRENT WAVEFORM, PLOT #1, ATTACH POINT #1, DISCHARGE #4, CONFIGURATION #1

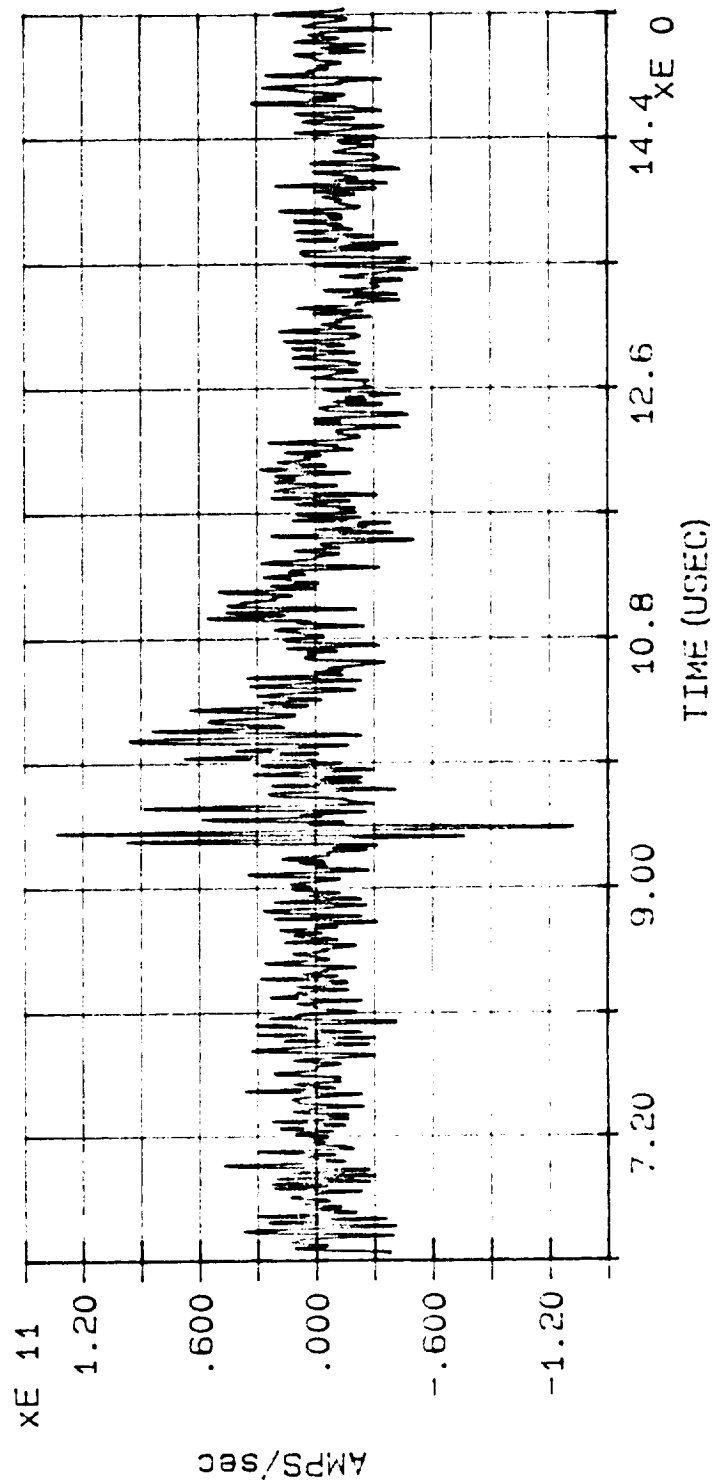
MARX di/dt

DATE: 06/27/90

TIME: 11:23:20.12

FILE: C:\CAT\DATA6\MI104.TST

MAX di/dt = 1.340E11



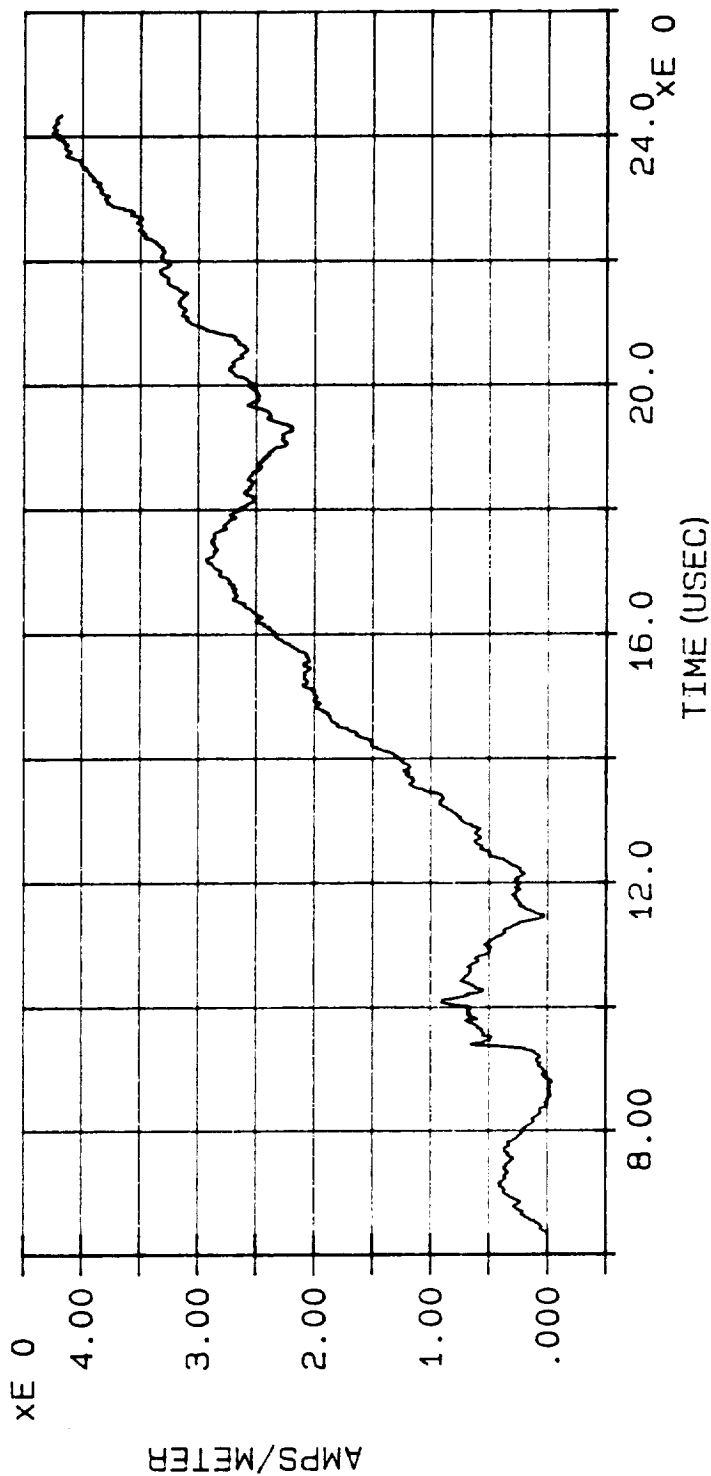
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 08:57:29.55

FILE: C:\CAT\DATA6\MB104.TST

MAX H = 4.266E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #1), PLOT #3,
ATTACH POINT #1, DISCHARGE #4

MARX MEASUREMENT: INPUT CURRENT

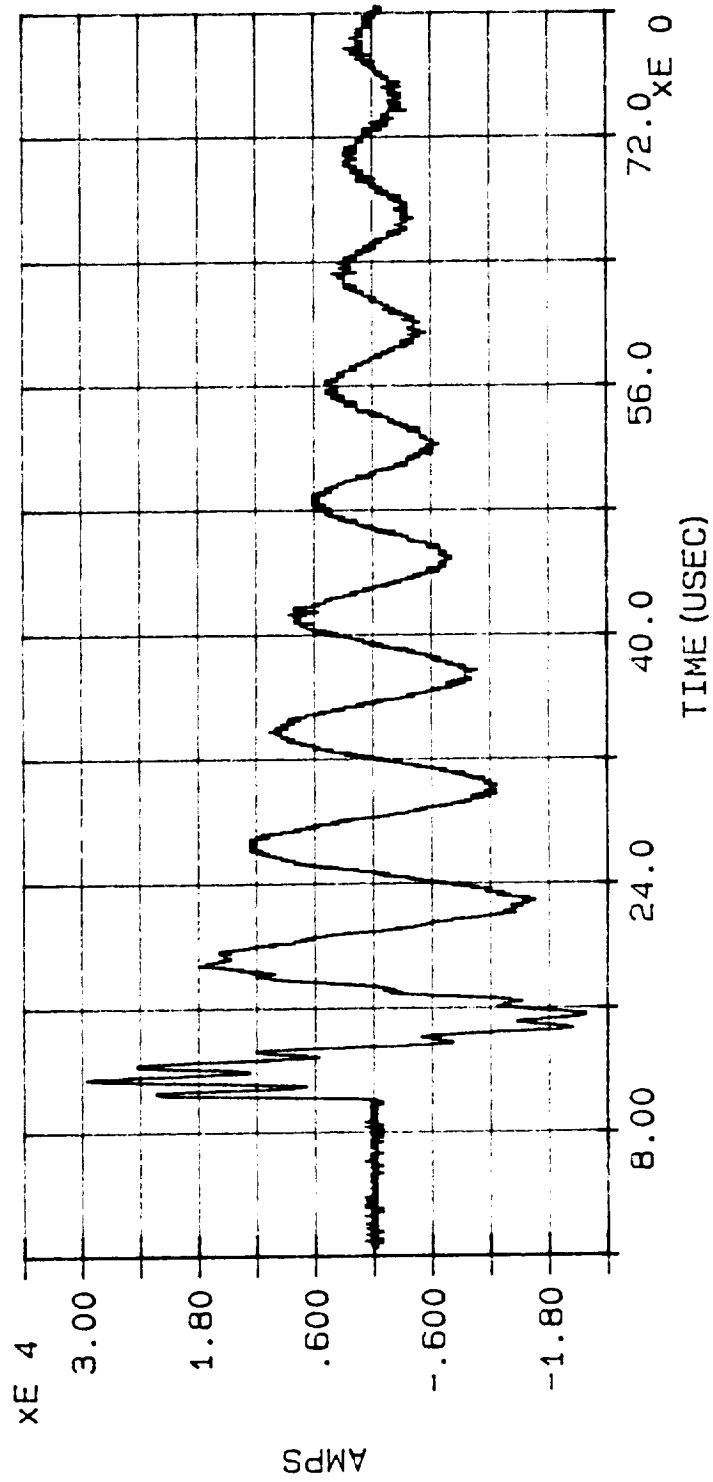
DATE: 06/27/90

TIME: 10:41:23.21

FILE: C:\CAT\DATA6\MI105.TST

MAX CURRENT = 3.028E4

ACTION INTEGRAL = 4.012E3



INJECTION CURRENT WAVEFORM, PLOT #4, ATTACH POINT #1, DISCHARGE #5, CONFIGURATION #1

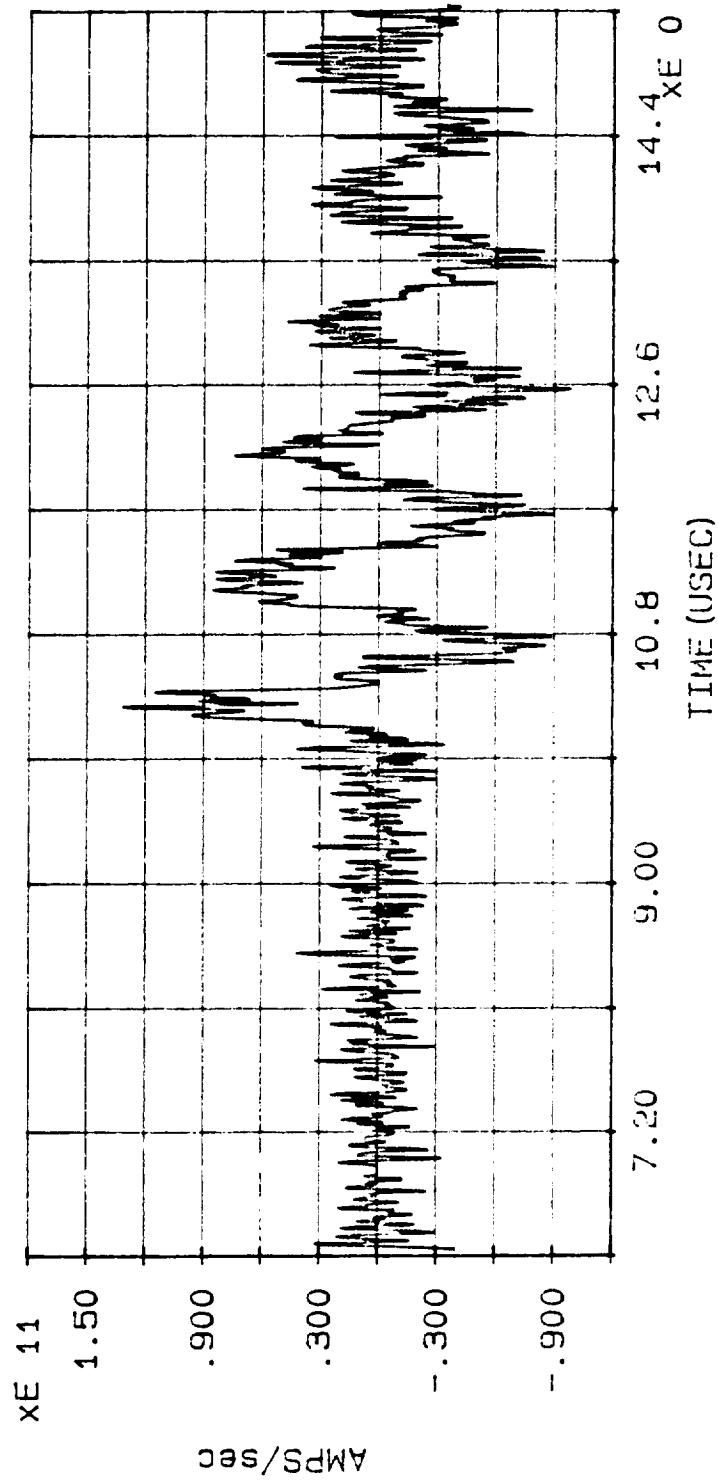
MARX di/dt

DATE: 06/27/90

TIME: 11:26:21.54

FILE: C:\CAT\DATA6\MI105.TST

MAX di/dt = 1.321E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #5, ATTACH POINT #1, DISCHARGE #5, CONFIGURATION #1

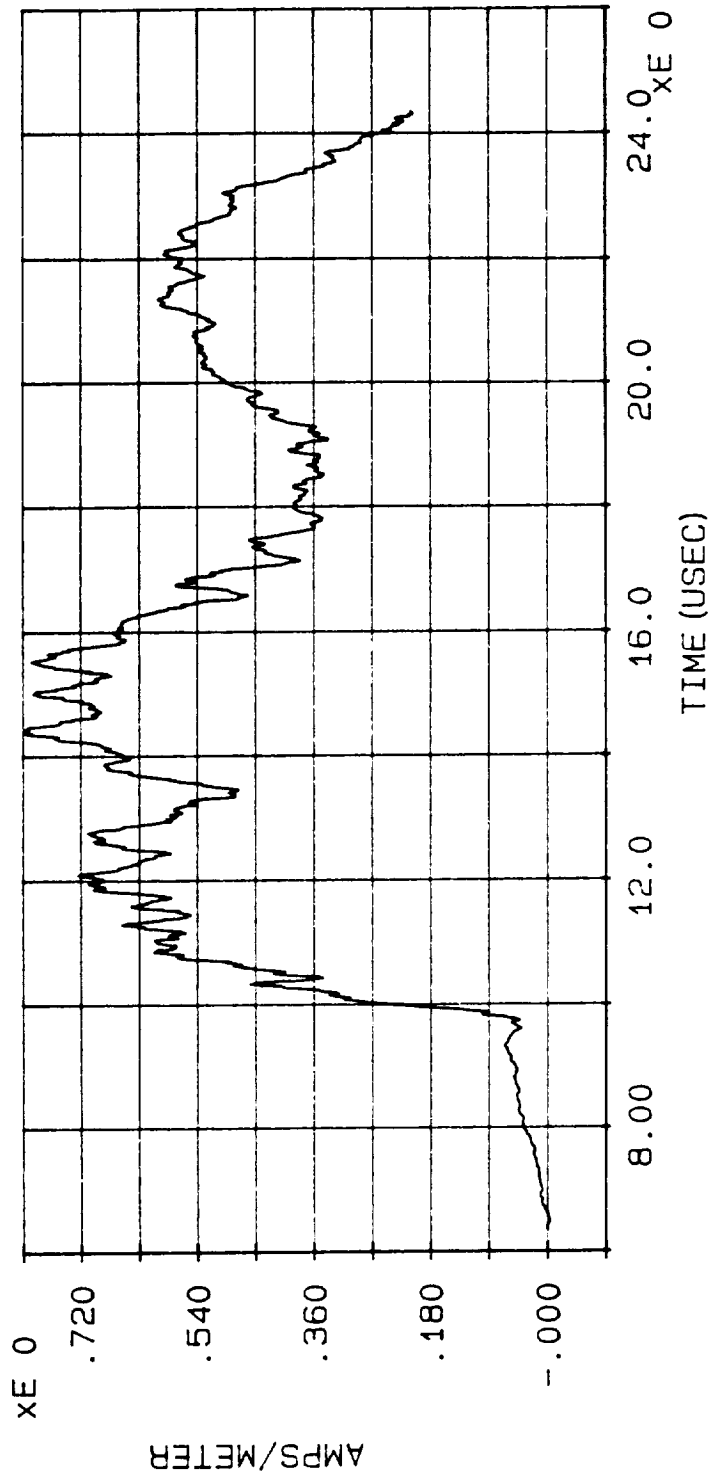
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 09:01:24.58

FILE: C:\CAT\DATA6\MB105.TST

MAX H = 8.094E-1



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #4), PLOT #6,
ATTACH POINT #1, DISCHARGE #5

MARX MEASUREMENT: INPUT CURRENT

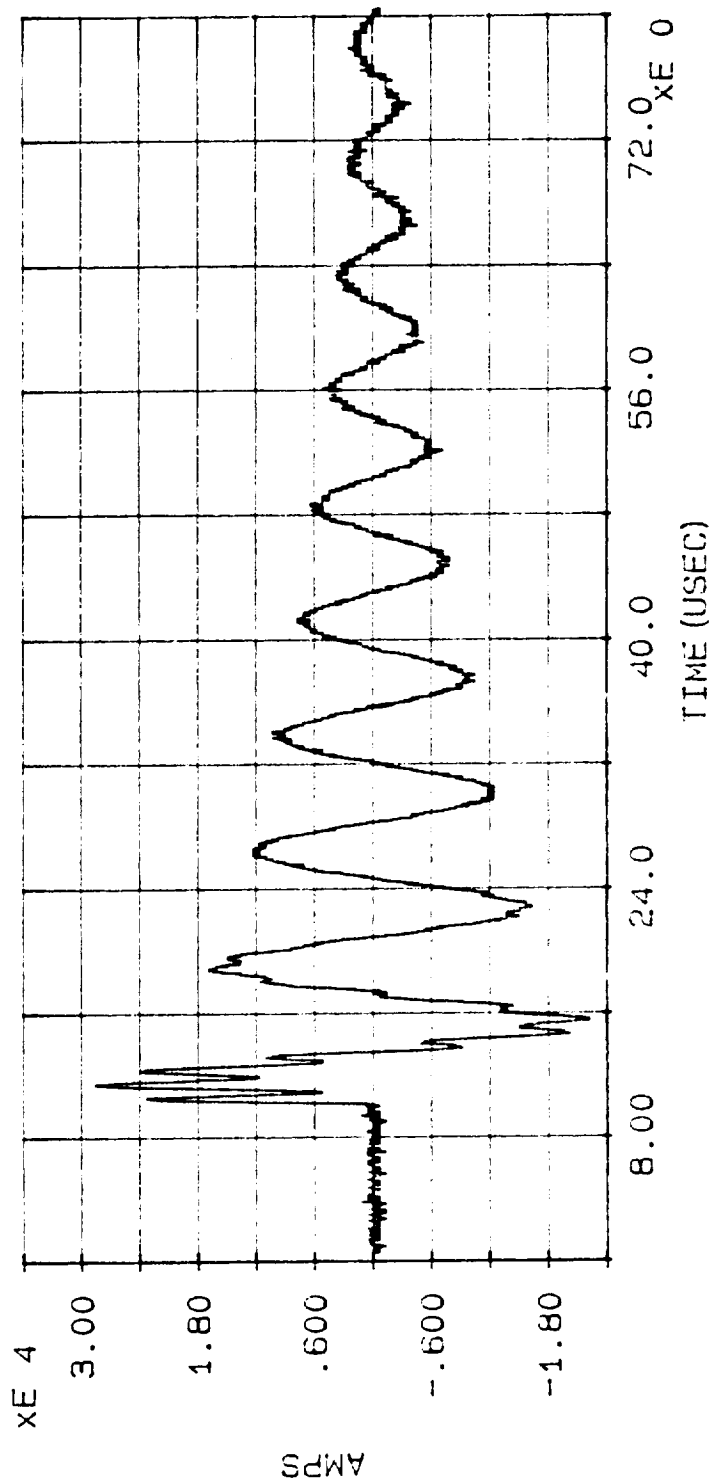
DATE: 06/27/90

TIME: 10: 45: 17.85

FILE: C:\CAT\DATA6\MI106.TST

MAX CURRENT = 2.925E4

ACTION INTEGRAL = 3.850E3



INJECTION CURRENT WAVEFORM, PLOT #7, ATTACH POINT #1, DISCHARGE #6, CONFIGURATION #1

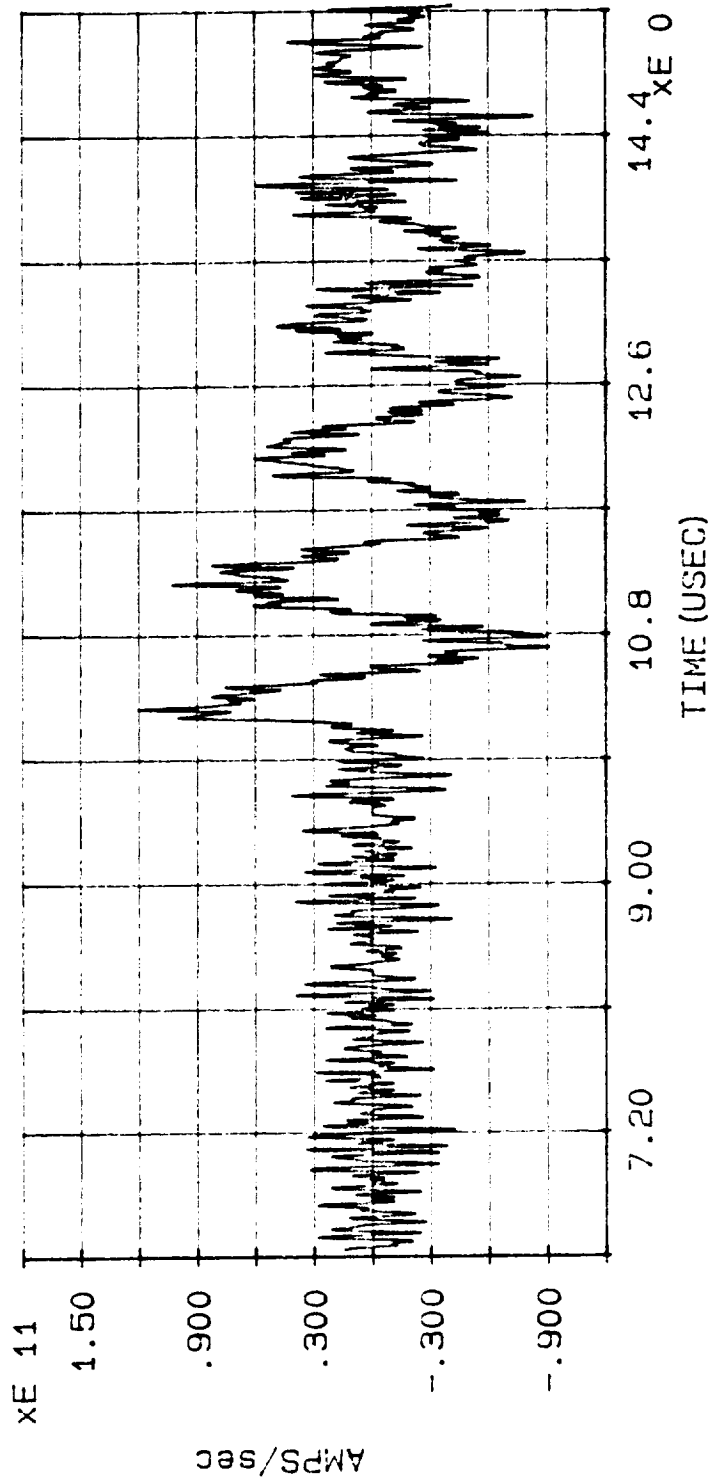
MARX di/dt

DATE: 06/27/90

TIME: 11:29:26.75

FILE: C:\CAT\DATA6\MI106.TST

MAX di/dt = 1.210E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #8, ATTACH POINT #1, DISCHARGE #6, CONFIGURATION #1

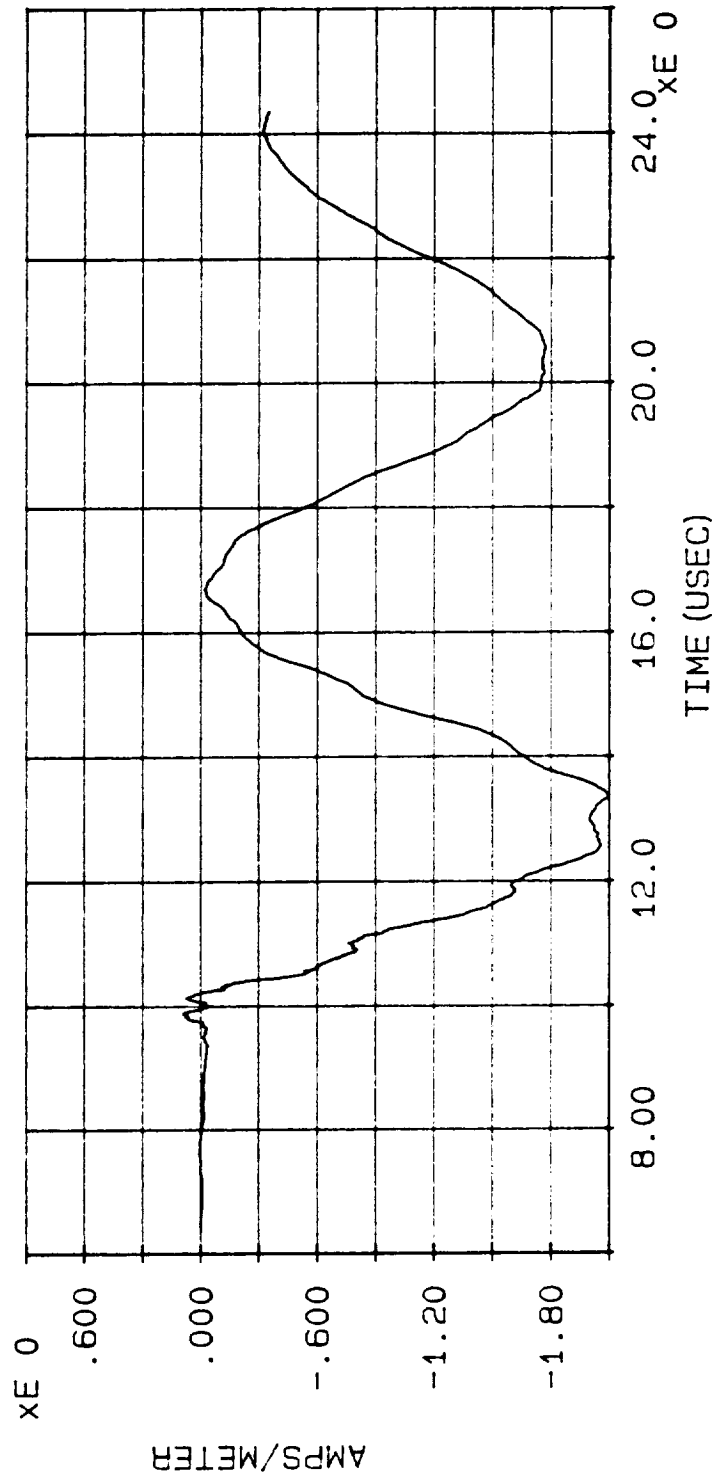
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 09:05:00.27

FILE: C:\CAT\DATA6\MB106.TST

MAX H = -2.093E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #7), PLOT #9, ATTACH POINT #1, DISCHARGE #7

MARX MEASUREMENT: INPUT CURRENT

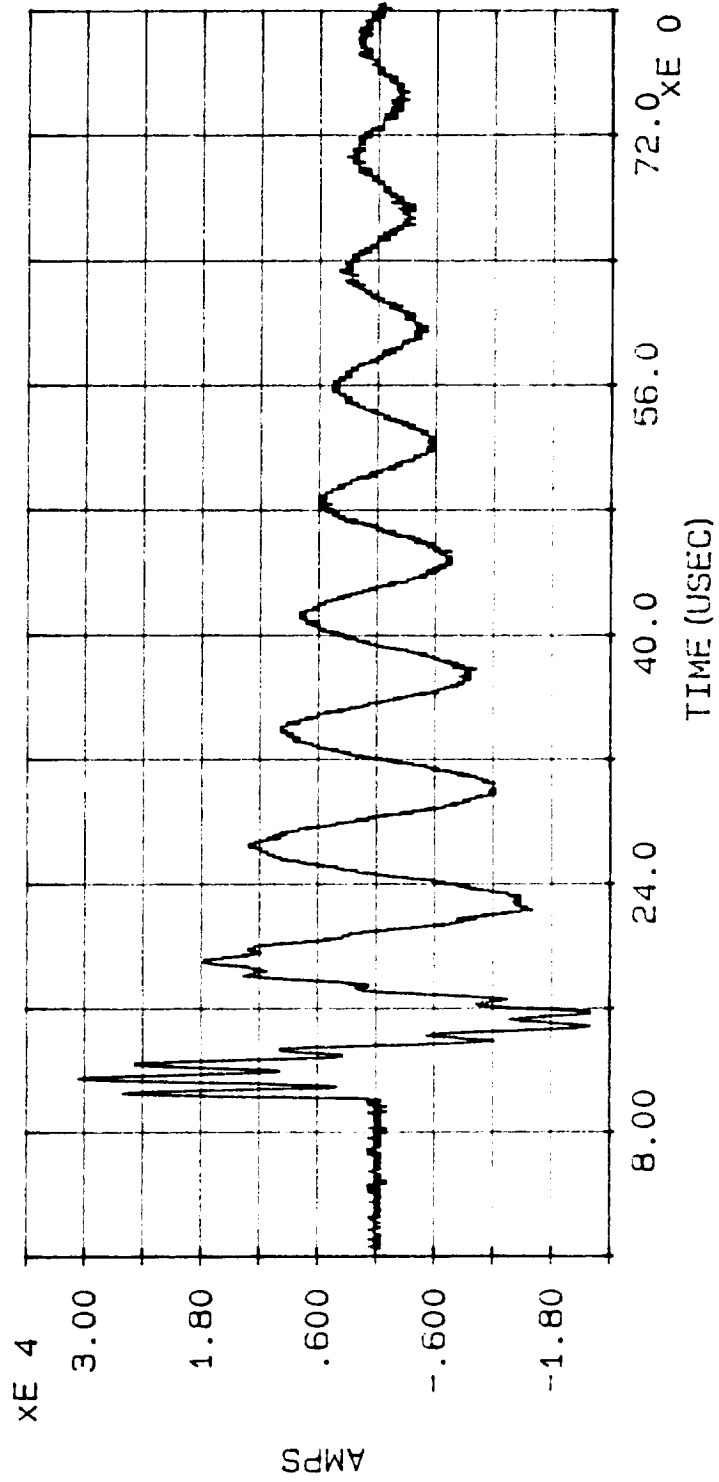
DATE: 06/27/90

TIME: 10:53:32.57

FILE: C:\CAT\DATA6\MI107.TST

MAX CURRENT = 3.074E4

ACTION INTEGRAL = 3.890E3



INJECTION CURRENT WAVEFORM, PLOT #10, ATTACH POINT #1, DISCHARGE #7, CONFIGURATION #1

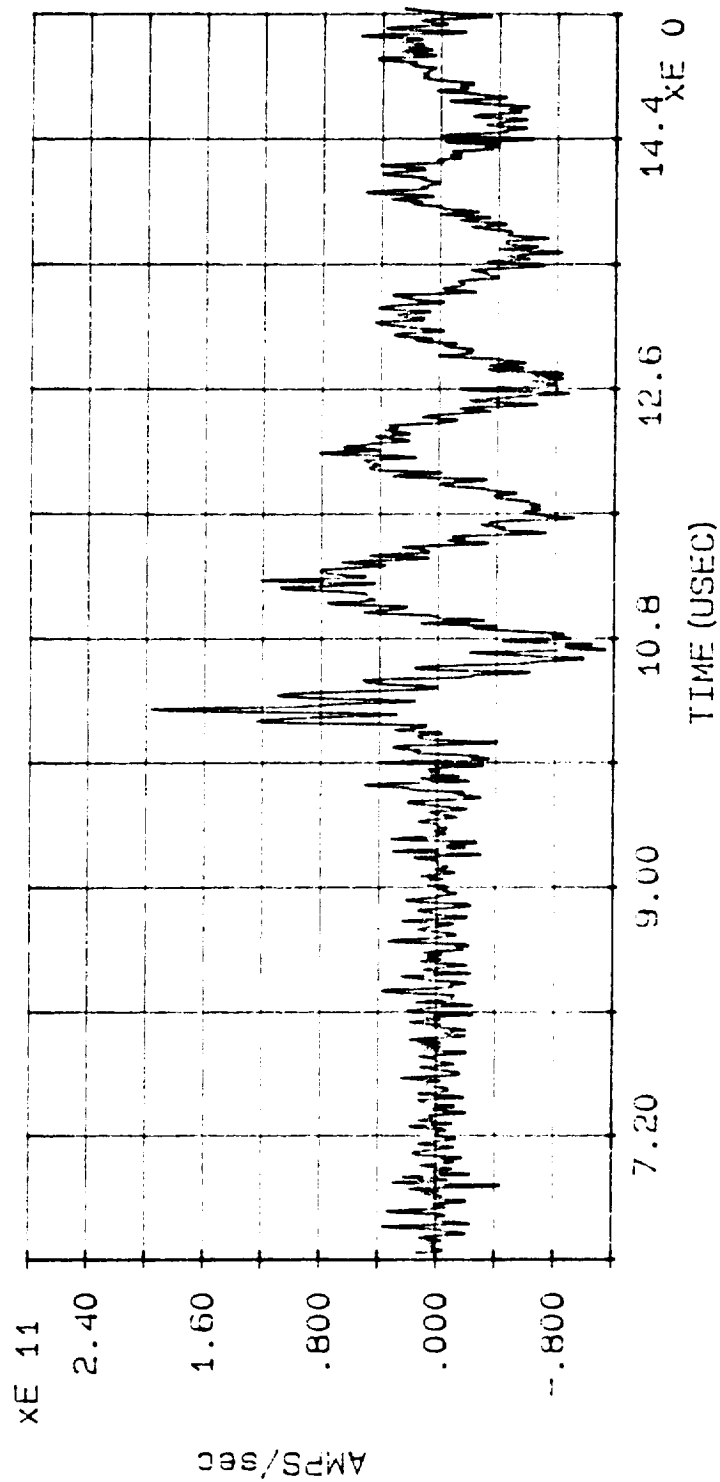
MARX di/dt

DATE: 06/27/90

TIME: 11:32:27.51

FILE: C:\CAT\DATA6\M1107.TST

MAX di/dt = 1.971E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #11, ATTACH POINT #1, DISCHARGE #7, CONFIGURATION #1

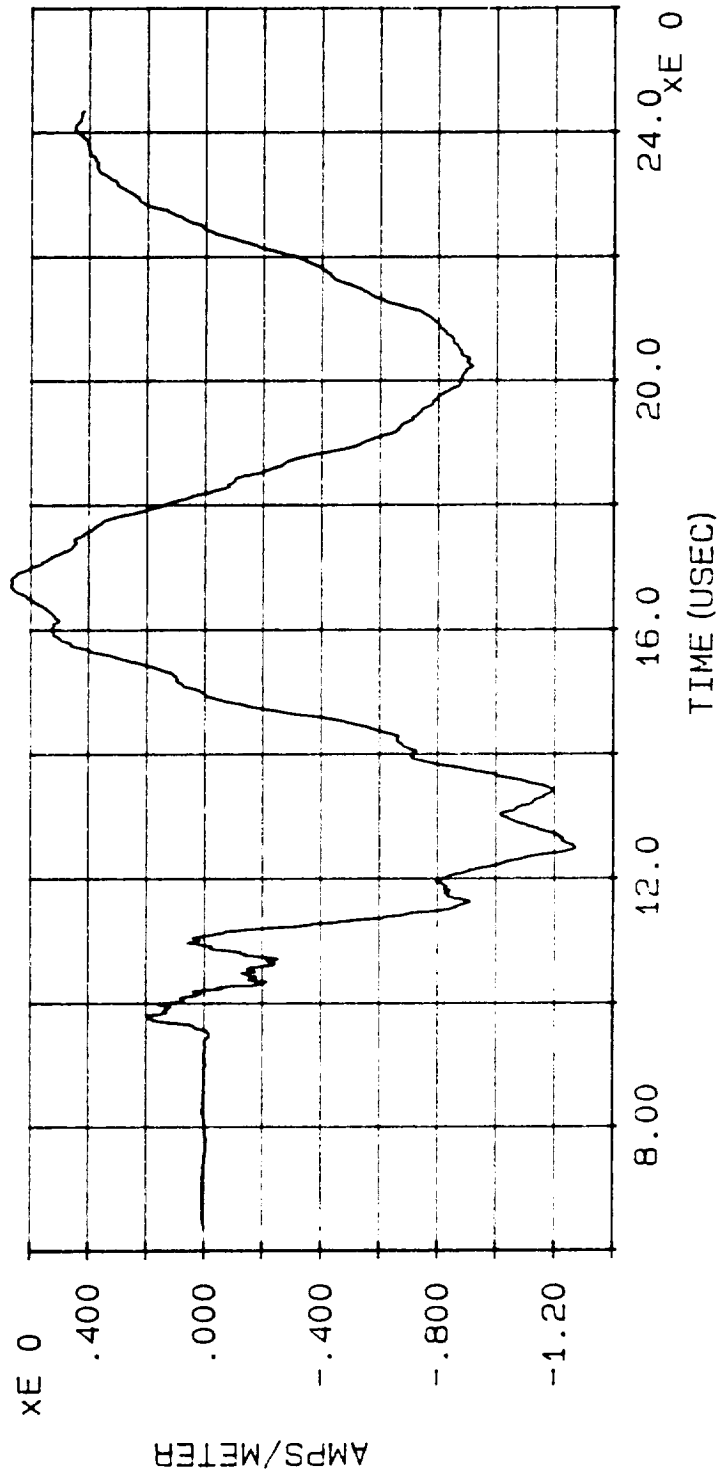
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 09:08:52.94

FILE: C:\CAT\DATA6\MB107.TST

MAX H = -1.272E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #10), PLOT #12, ATTACH POINT #1, DISCHARGE #7

MARX MEASUREMENT: INPUT CURRENT

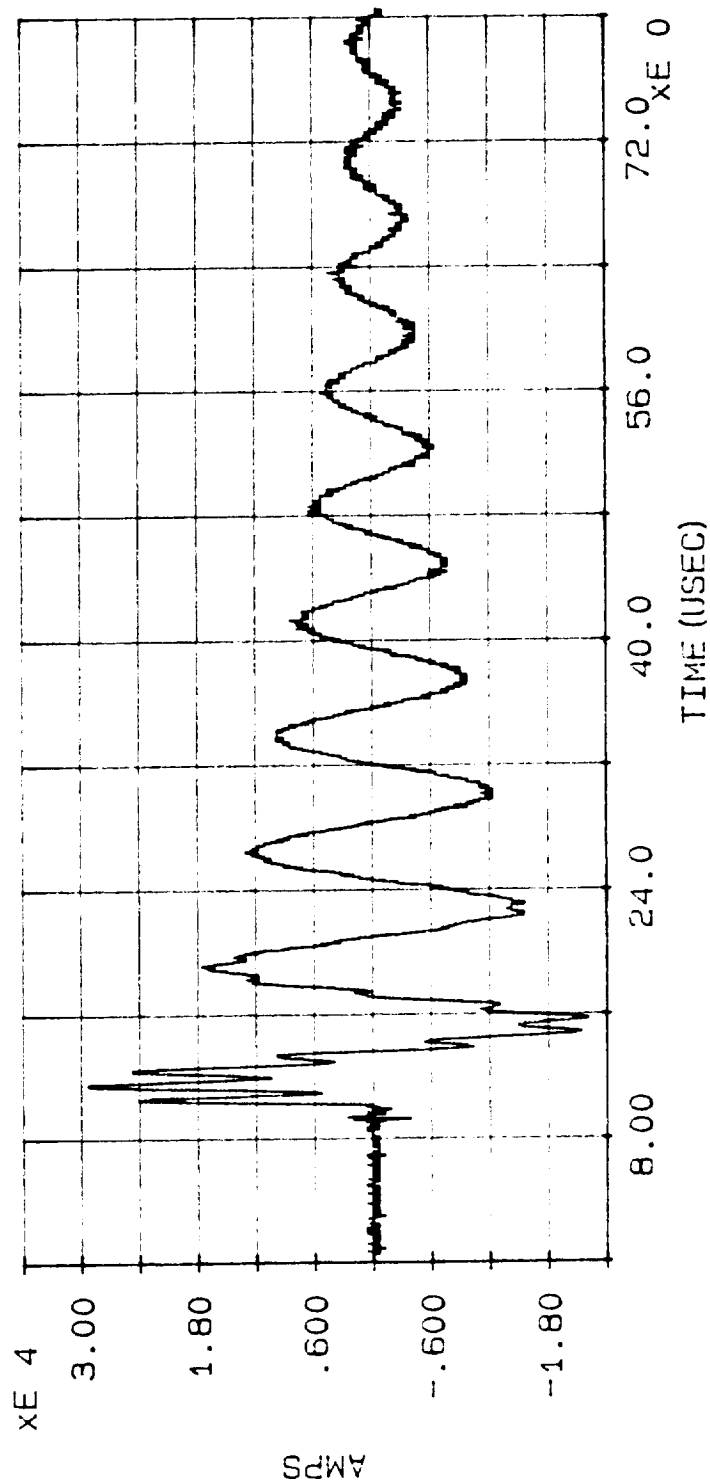
DATE: 06/27/90

TIME: 10: 49: 44.35

FILE: C:\CAT\DATA6\M1108.TST

MAX CURRENT = 2.933E4

ACTION INTEGRAL = 3.876E3



INJECTION CURRENT WAVEFORM, PLOT #13, ATTACH POINT #1, DISCHARGE #8, CONFIGURATION #1

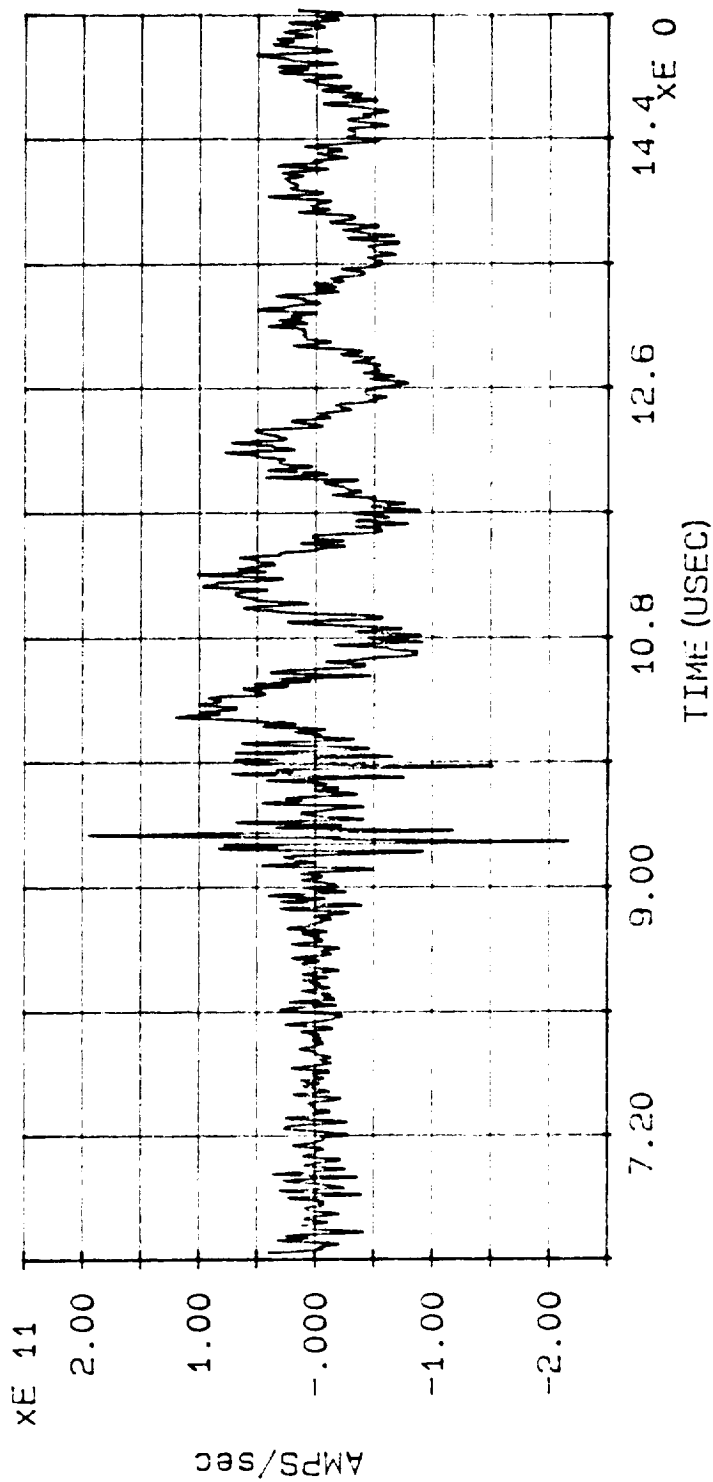
MARX di/dt

DATE: 06/27/90

TIME: 11:37:42.72

FILE: C:\CAT\DATA6\MI108.TST

MAX di/dt = -2.166E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #14, ATTACH POINT #1, DISCHARGE #8, CONFIGURATION #1

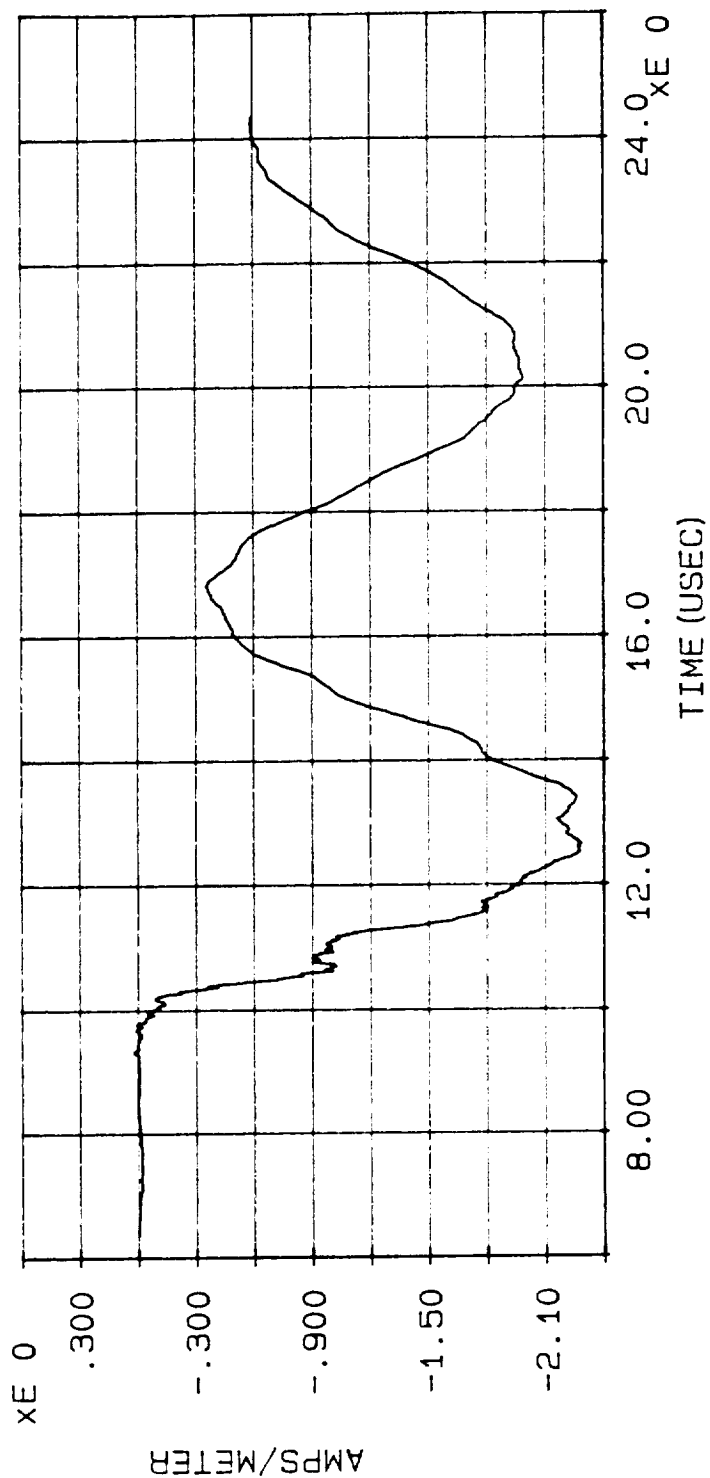
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 09:13:05.15

FILE: C:\CAT\DATA6\MB108.TST

MAX H = -2.281E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #13), PLOT #15,
ATTACH POINT #1, DISCHARGE #8

MARX MEASUREMENT: INPUT CURRENT

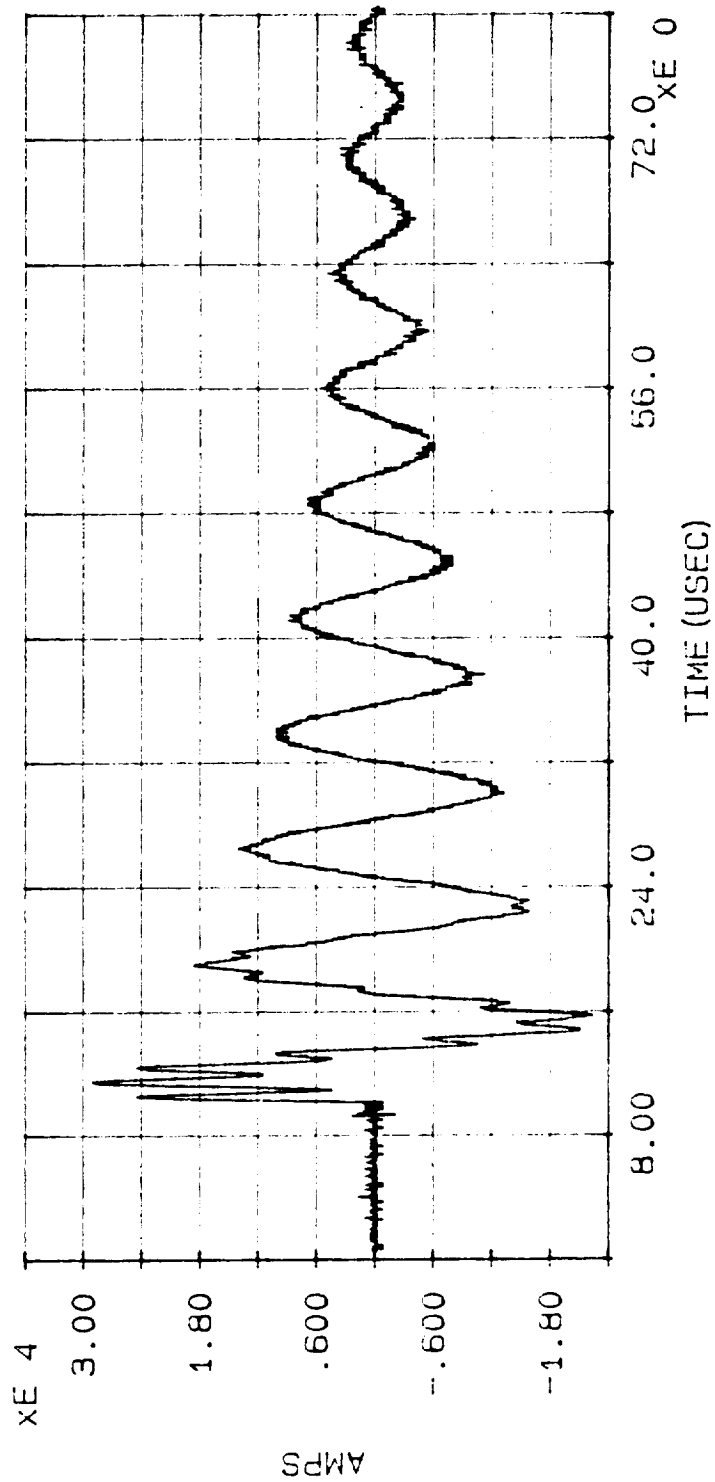
DATE: 06/27/90

TIME: 10:57:30.40

FILE: C:\CAT\DATA6\MI209.TST

MAX CURRENT = 2.973E4

ACTION INTEGRAL = 4.020E3



INJECTION CURRENT WAVEFORM, PLOT #16, ATTACH POINT #2, DISCHARGE #9, CONFIGURATION #1

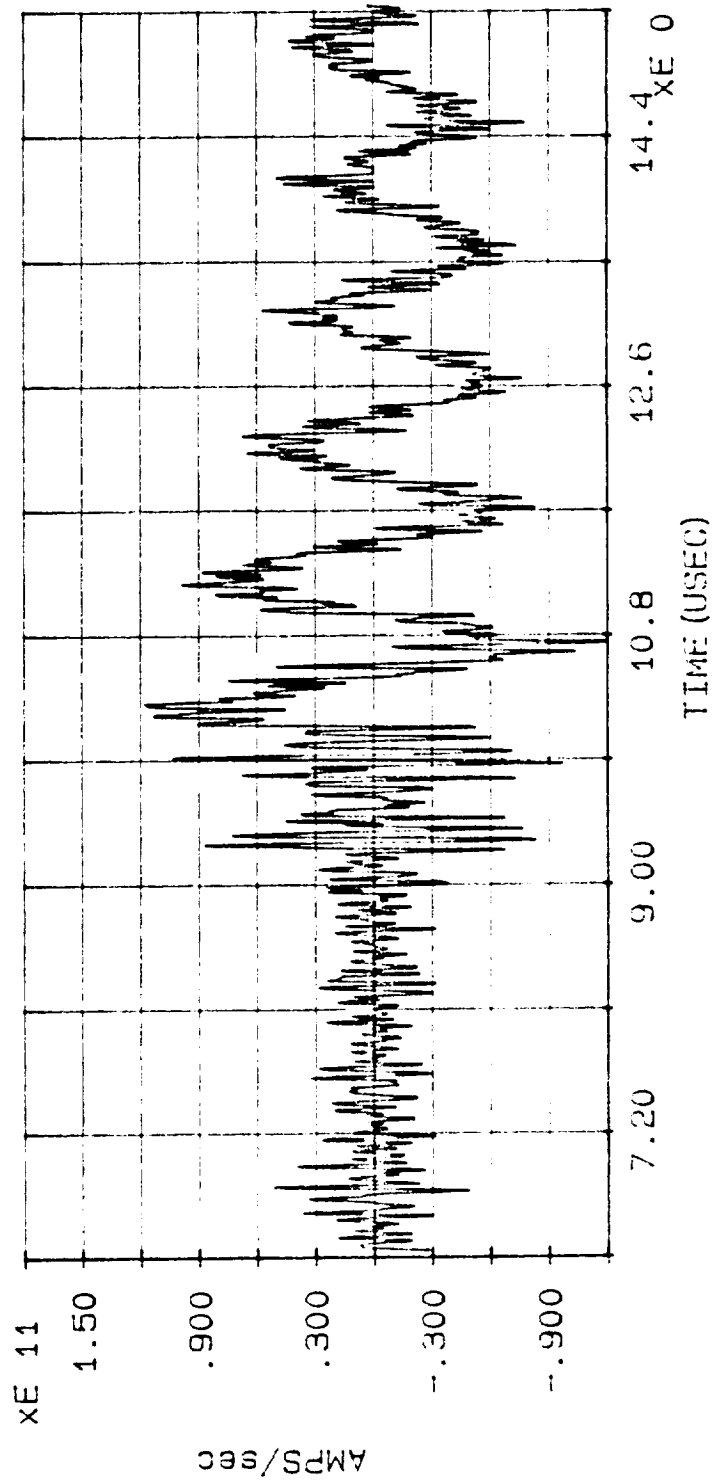
MARX di/dt

DATE: 06/27/90

TIME: 11: 40: 46.12

FILE: C:\CAT\DATA6\MI109.TST

MAX di/dt = -1.197E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #17, ATTACH POINT #2, DISCHARGE #9,
CONFIGURATION #1

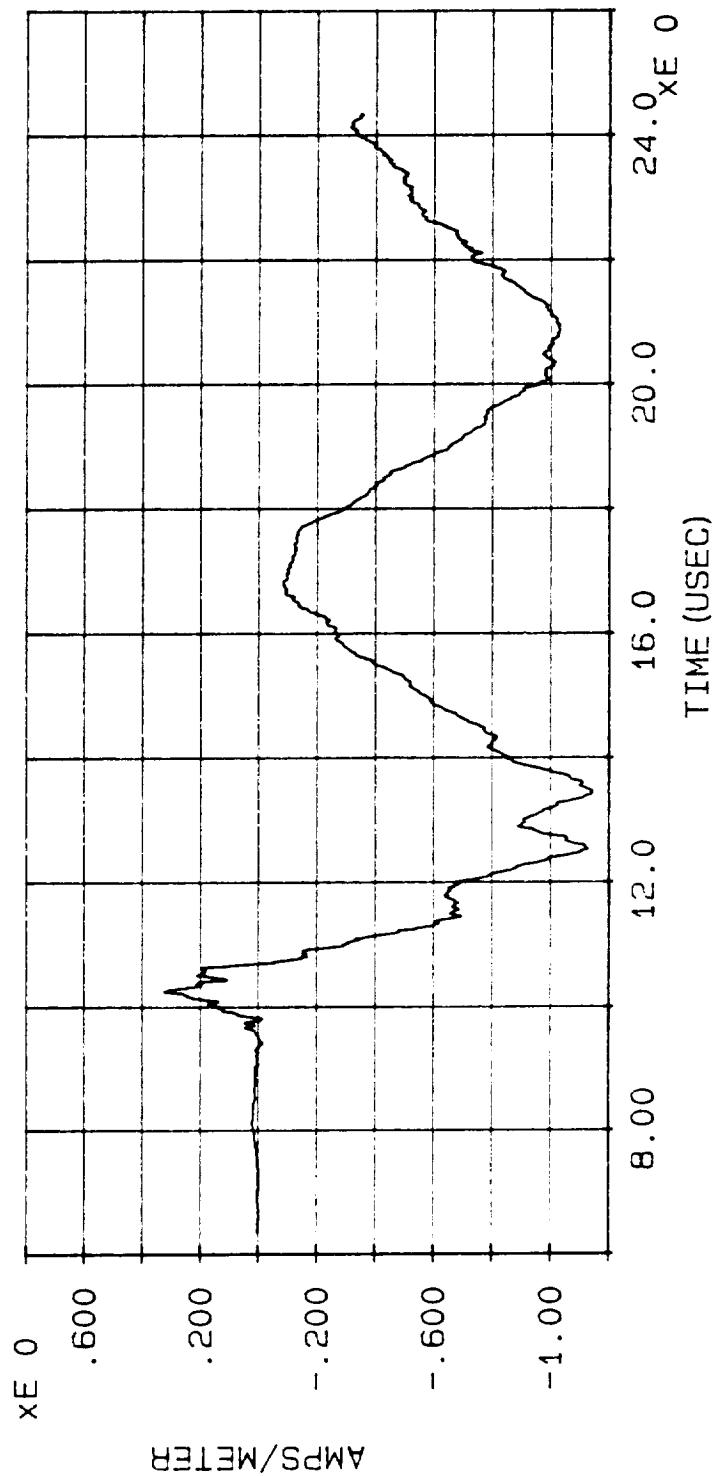
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 09:16:40.30

FILE: C:\CAT\DATA6\MB109.TST

MAX H = -1.142E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #16), PLOT #18,
ATTACH POINT #2, DISCHARGE #9

MARX MEASUREMENT: INPUT CURRENT

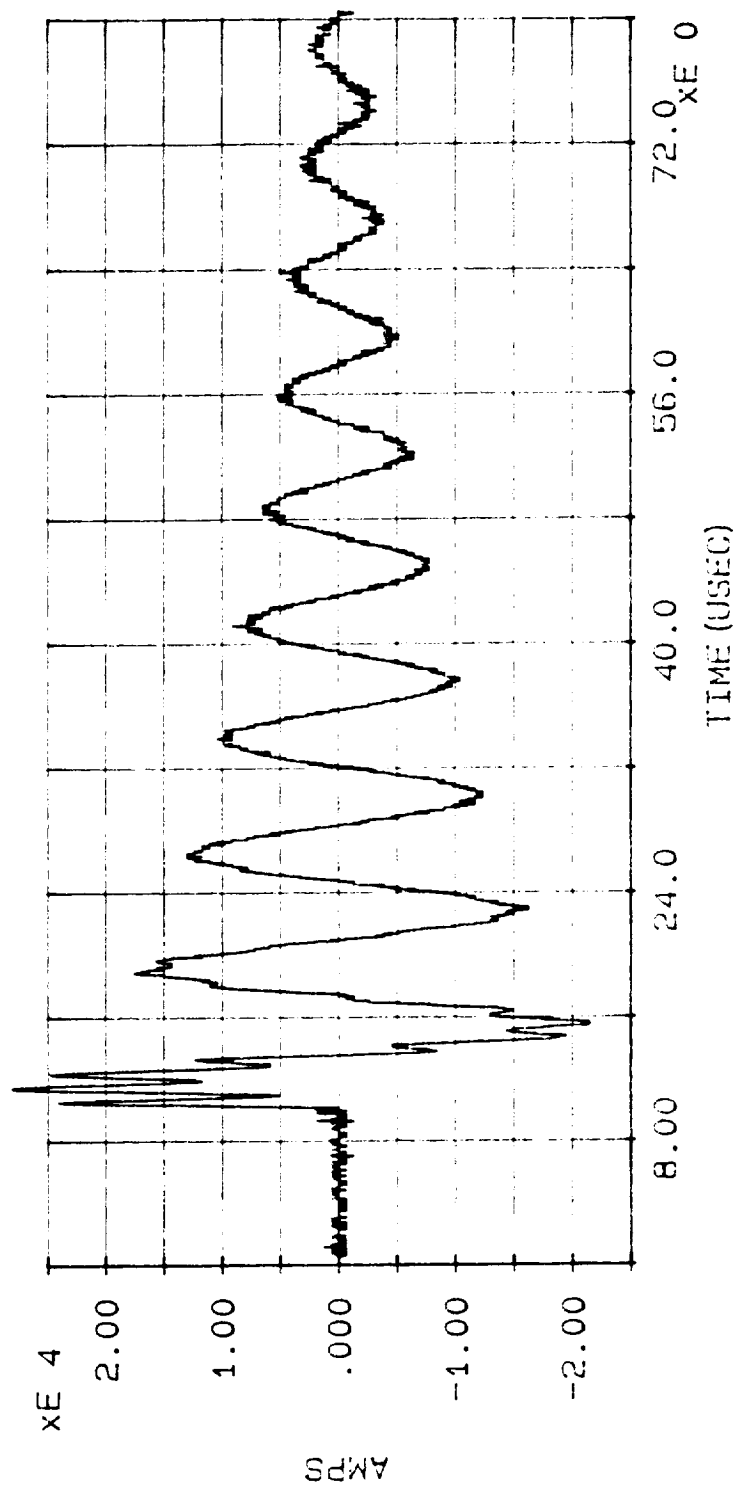
DATE: 06/27/90

TIME: 11:01:31.63

FILE: C:\CAT\DATA6\MI210.TST

MAX CURRENT = 2.933E4

ACTION INTEGRAL = 3.889E3



INJECTION CURRENT WAVEFORM, PLOT #19, ATTACH POINT #2, DISCHARGE #10, CONFIGURATION #1

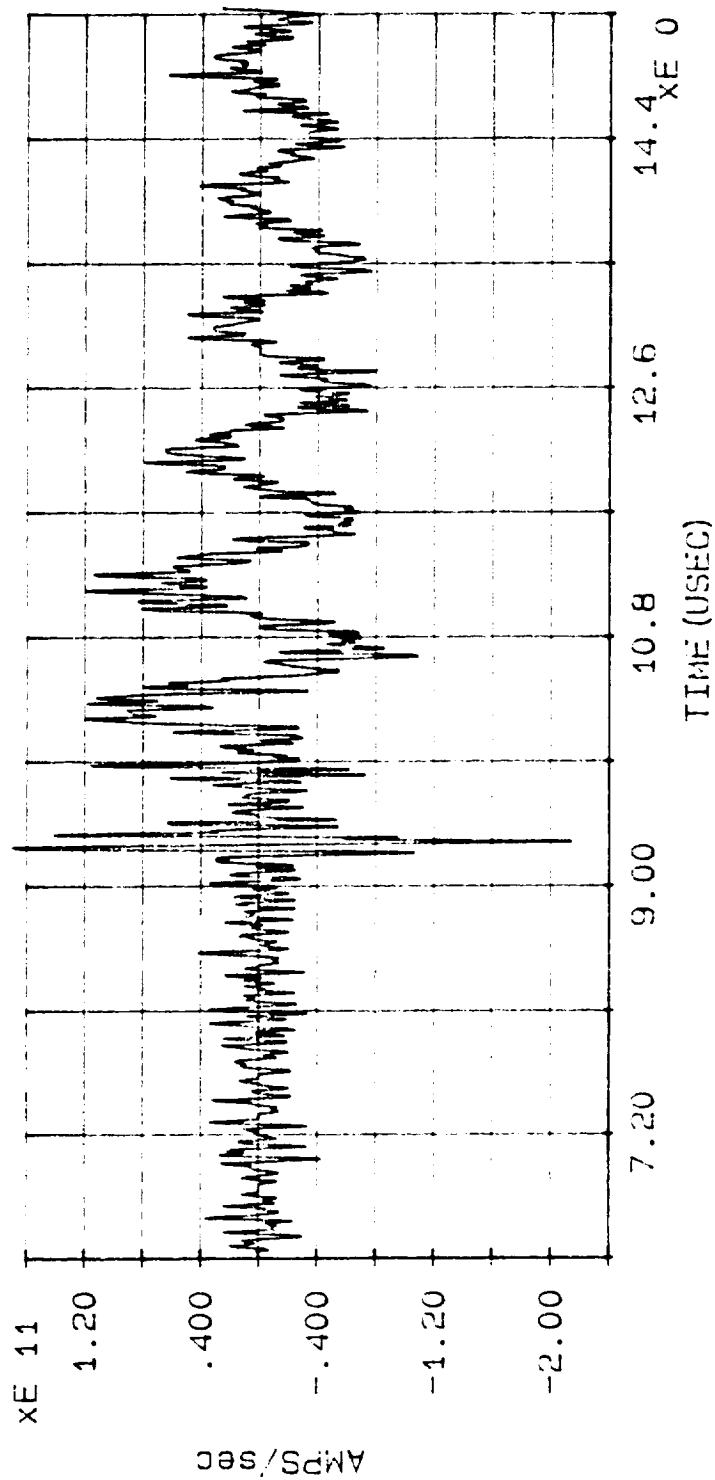
MARX di/dt

DATE: 06/27/90

TIME: 11:43:45.01

FILE: C:\CAT\DATA6\MI210.TST

MAX di/dt = -2.143E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #20, ATTACH POINT #2, DISCHARGE #10, CONFIGURATION #1

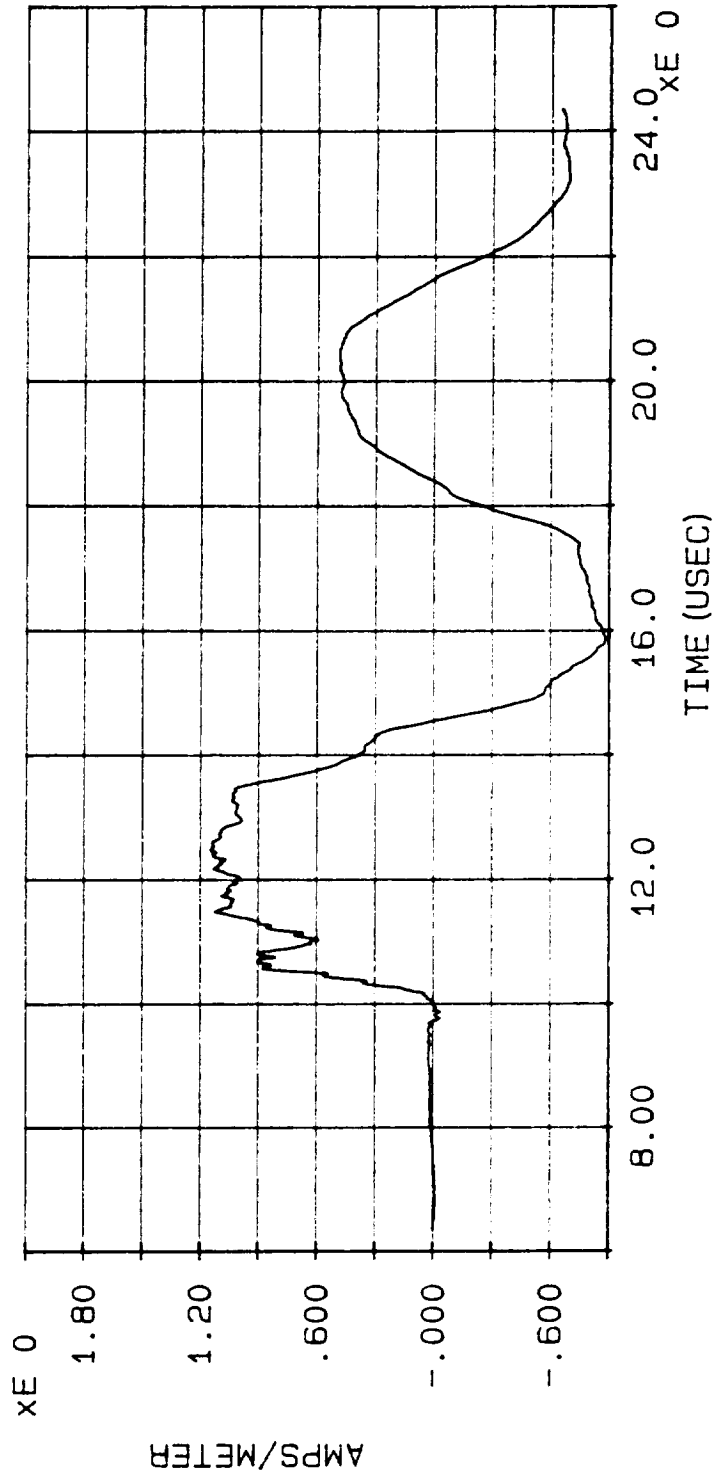
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 09:20:07.04

FILE: C:\CAT\DATA6\MB210.TST

MAX H = 1.151E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #19), PLOT #21,
ATTACH POINT #2, DISCHARGE #10

MARX MEASUREMENT: INPUT CURRENT

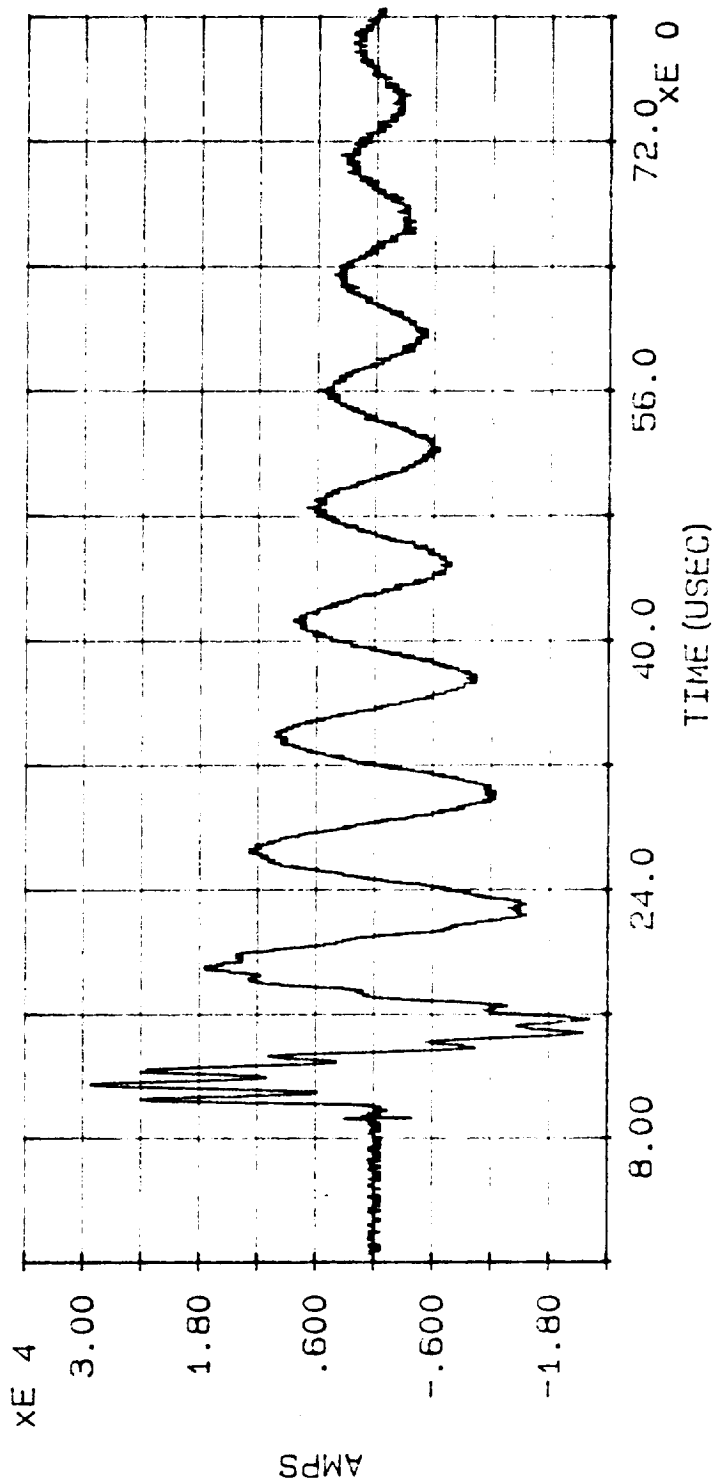
DATE: 06/27/90

TIME: 11:05:33.85

FILE: C:\CAT\DATA6\MI211.TST

MAX CURRENT = 2.922E4

ACTION INTEGRAL = 3.904E3



INJECTION CURRENT WAVEFORM, PLOT #22, ATTACH POINT #2, DISCHARGE #11, CONFIGURATION #1

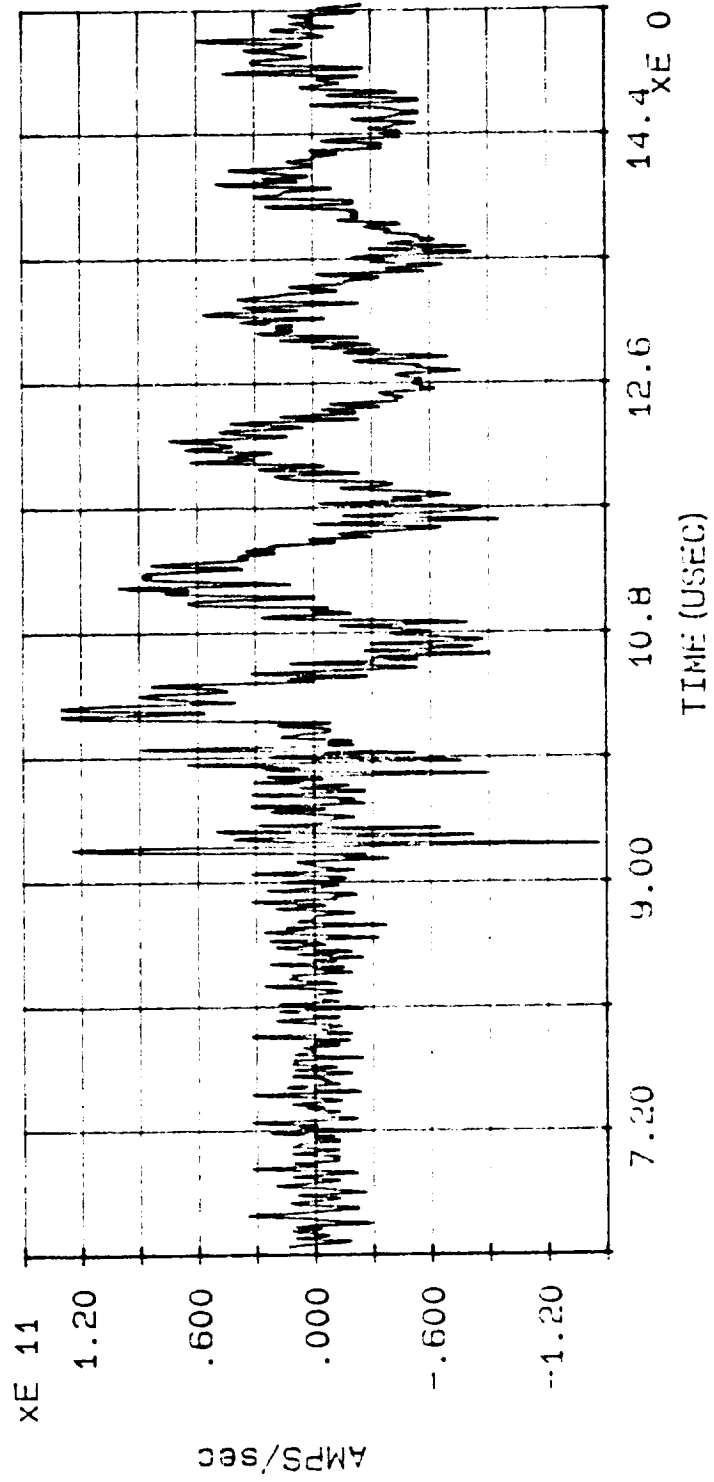
MARX di/dt

DATE: 06/27/90

TIME: 11:46:42.20

FILE: C:\CAT\DATA6\MI211.TST

MAX di/dt = -1.464E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #23, ATTACH POINT #2, DISCHARGE #11, CONFIGURATION #1

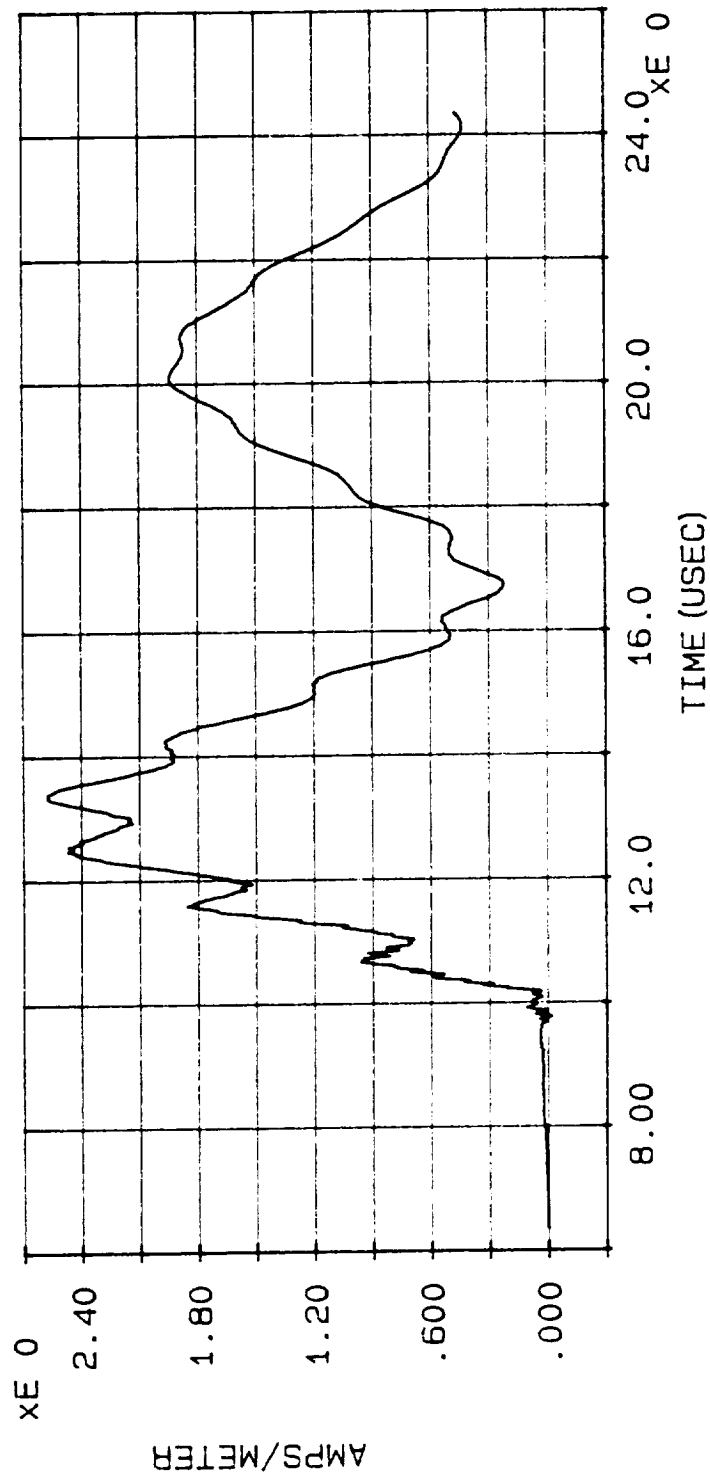
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 11:51:42.04

FILE: C:\CAT\DATA6\MB211.TST

MAX H = 2.577E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #22), PLOT #24,
ATTACH POINT #2, DISCHARGE #11

MARX MEASUREMENT: INPUT CURRENT

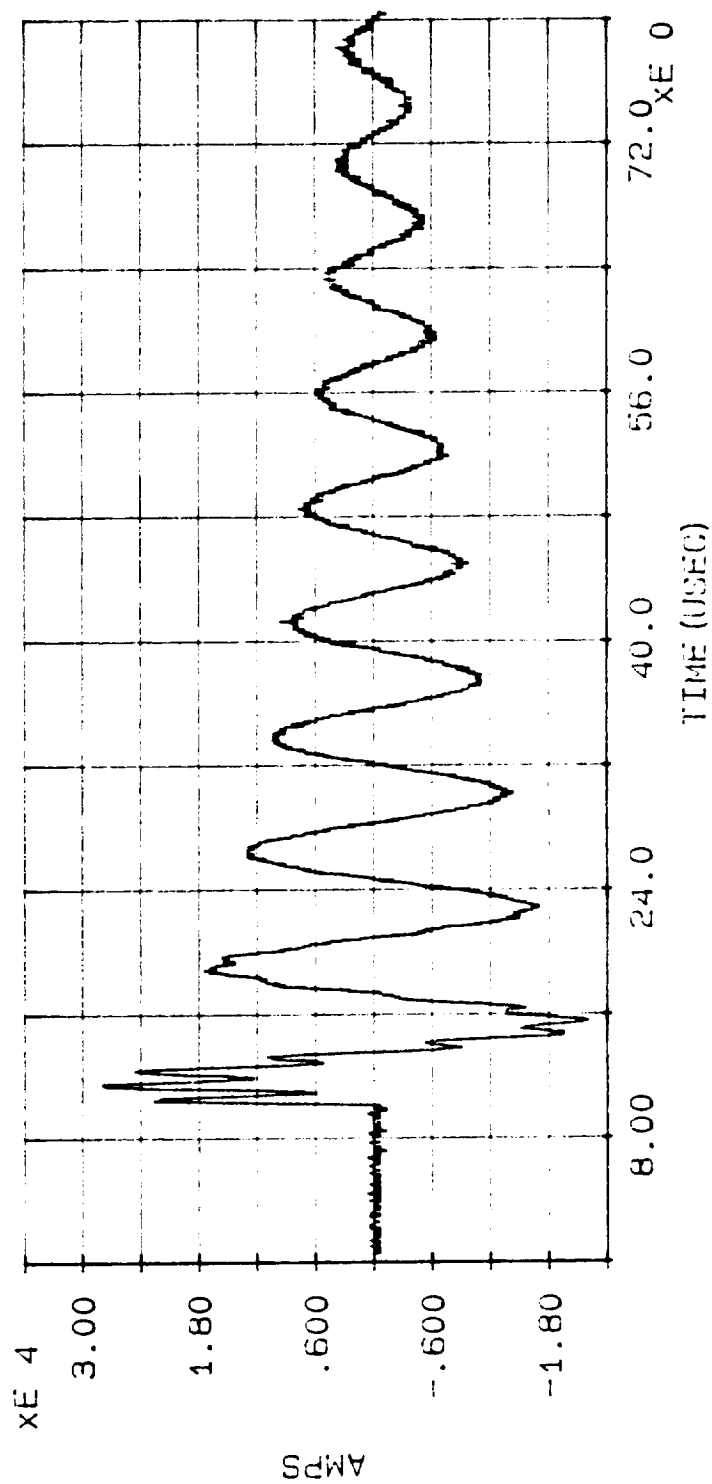
DATE: 06/27/90

TIME: 11:09:39.97

FILE: C:\CAT\DATA6\MI212.TST

MAX CURRENT = 2.993E4

ACTION INTEGRAL = 4.411E3



INJECTION CURRENT WAVEFORM, PLOT #25, ATTACH POINT #2, DISCHARGE #12, CONFIGURATION #1

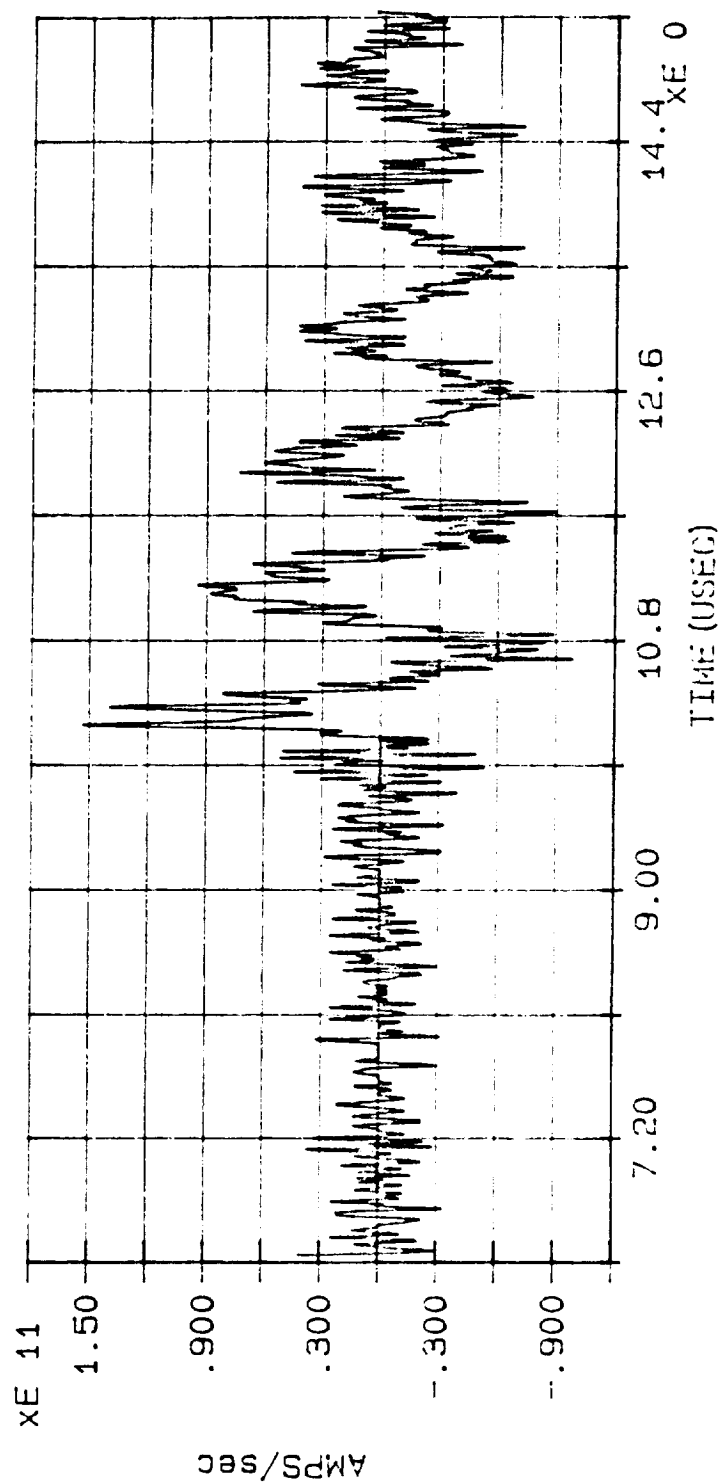
MARX di/dt

DATE: 06/27/90

TIME: 12:37:44.90

FILE: C:\CAT\DATA6\MI212.TST

MAX di/dt = 1.535E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #26, ATTACH POINT #2, DISCHARGE #12, CONFIGURATION #1

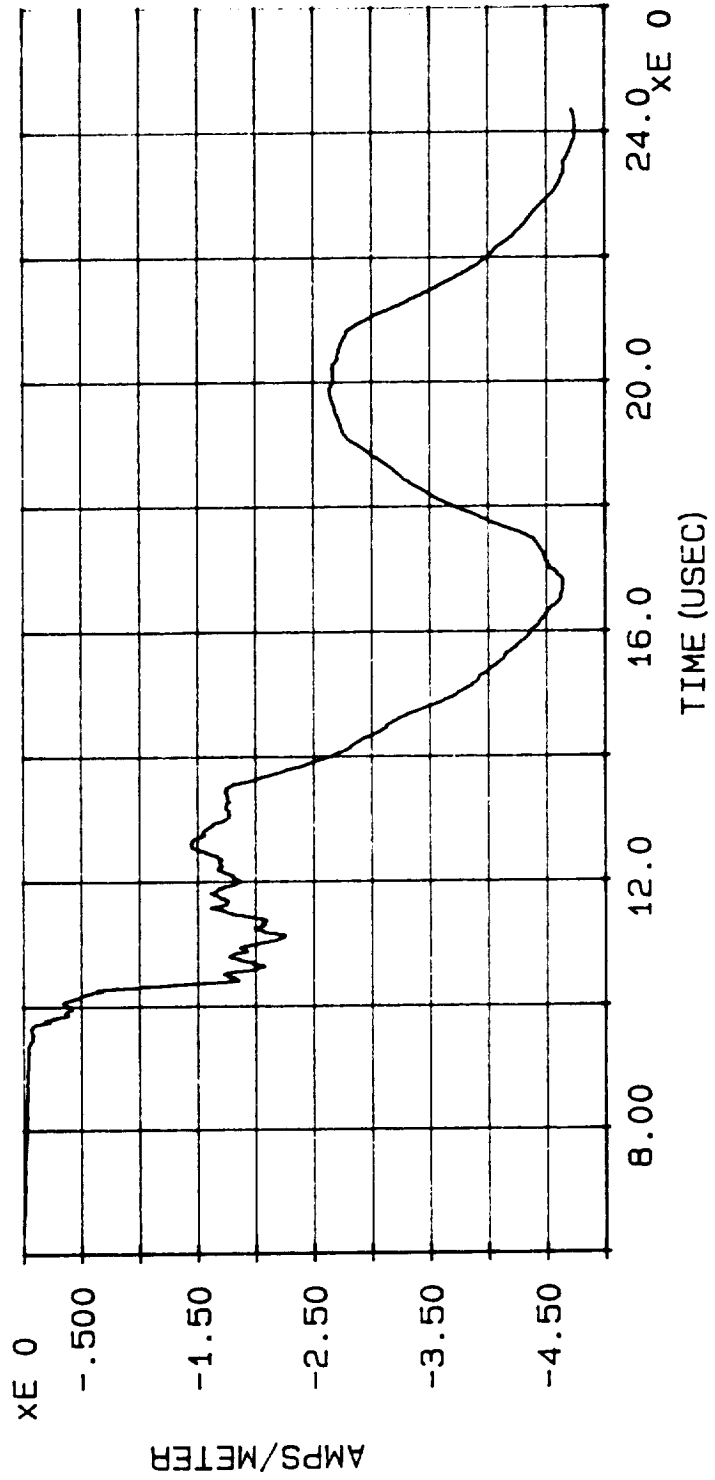
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 13:37:36.75

FILE: C:\CAT\DATA6\MB212.TST

MAX H = -4.743E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #25), PLOT #27,
ATTACH POINT #2, DISCHARGE #12

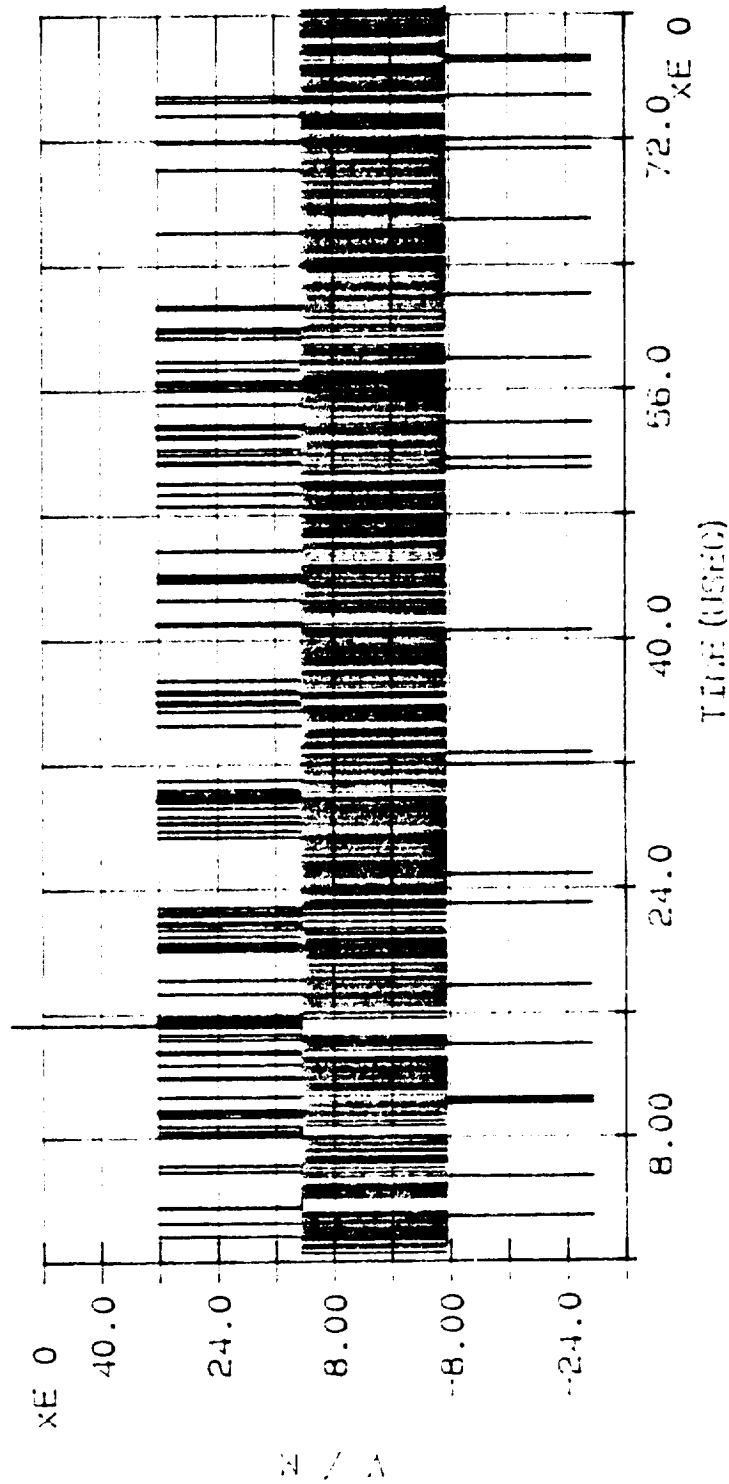
MARX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 16:56:41.07

FILE: C:\CAT\DATA6\ME212.TST

MAX E-field = 5.253E1



ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #25), PLOT #28,
ATTACH POINT #2, DISCHARGE #12

MARX MEASUREMENT: INPUT CURRENT

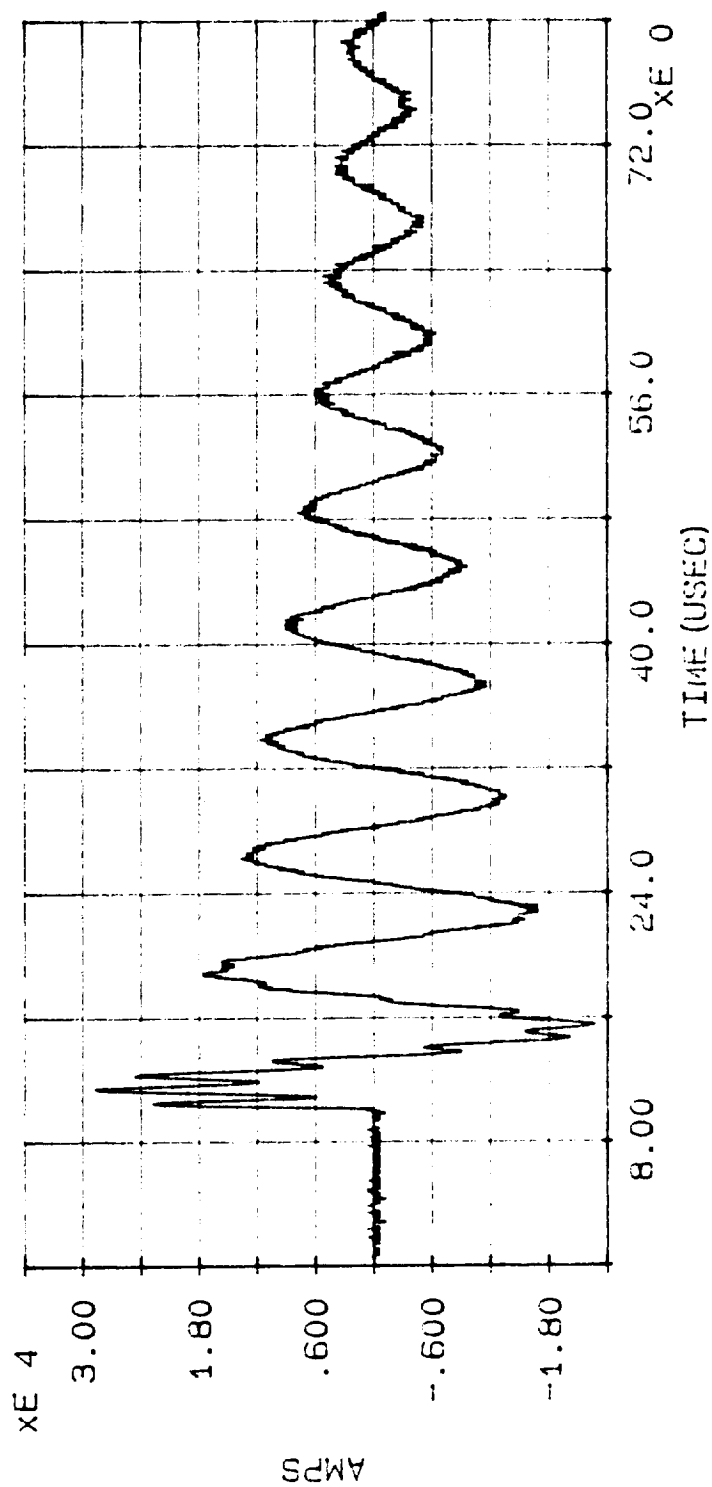
DATE: 06/27/90

TIME: 11:13:38.29

FILE: C:\CAT\DATA6\MI213.TST

MAX CURRENT = 2.939E4

ACTION INTEGRAL = 4.305E3



INJECTION CURRENT WAVEFORM, PLOT #29, ATTACH POINT #2, DISCHARGE #13, CONFIGURATION #1

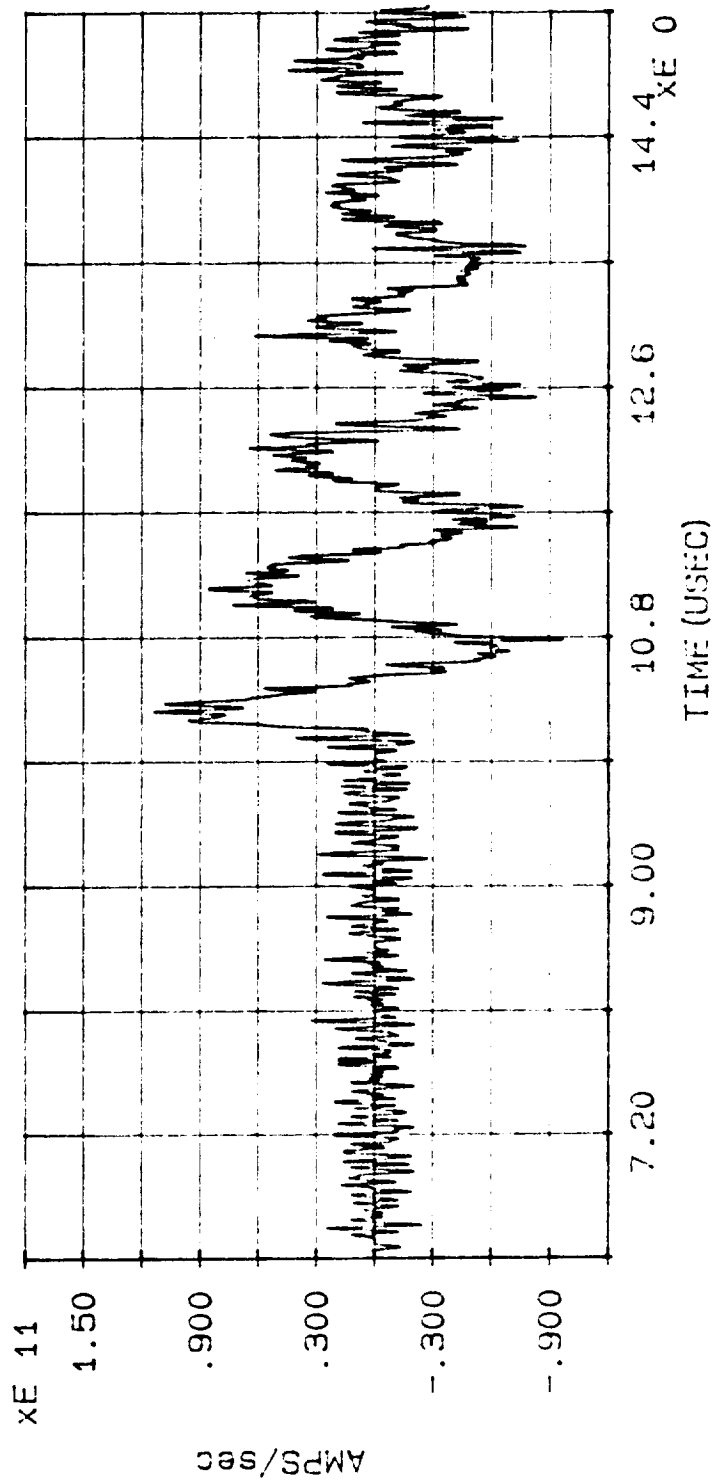
MARX di/dt

DATE: 06/27/90

TIME: 12:41:19.39

FILE: C:\CAT\DATA6\MI213.TST

MAX di/dt = 1.142E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #30, ATTACH POINT #2, DISCHARGE #13, CONFIGURATION #1

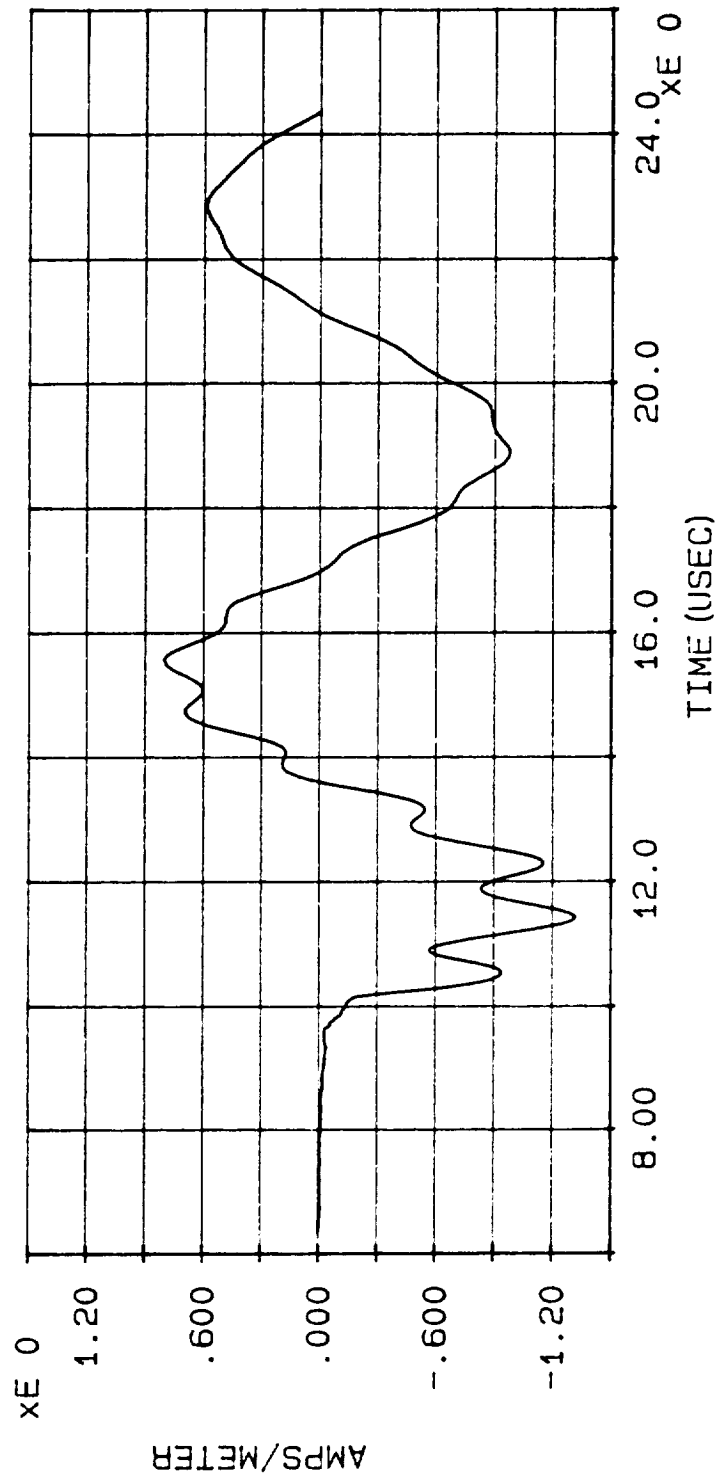
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 13:42:23.30

FILE: C:\CAT\DATA6\MB213.TST

MAX H = -1.315E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #29), PLOT #31,
ATTACH POINT #2, DISCHARGE #13

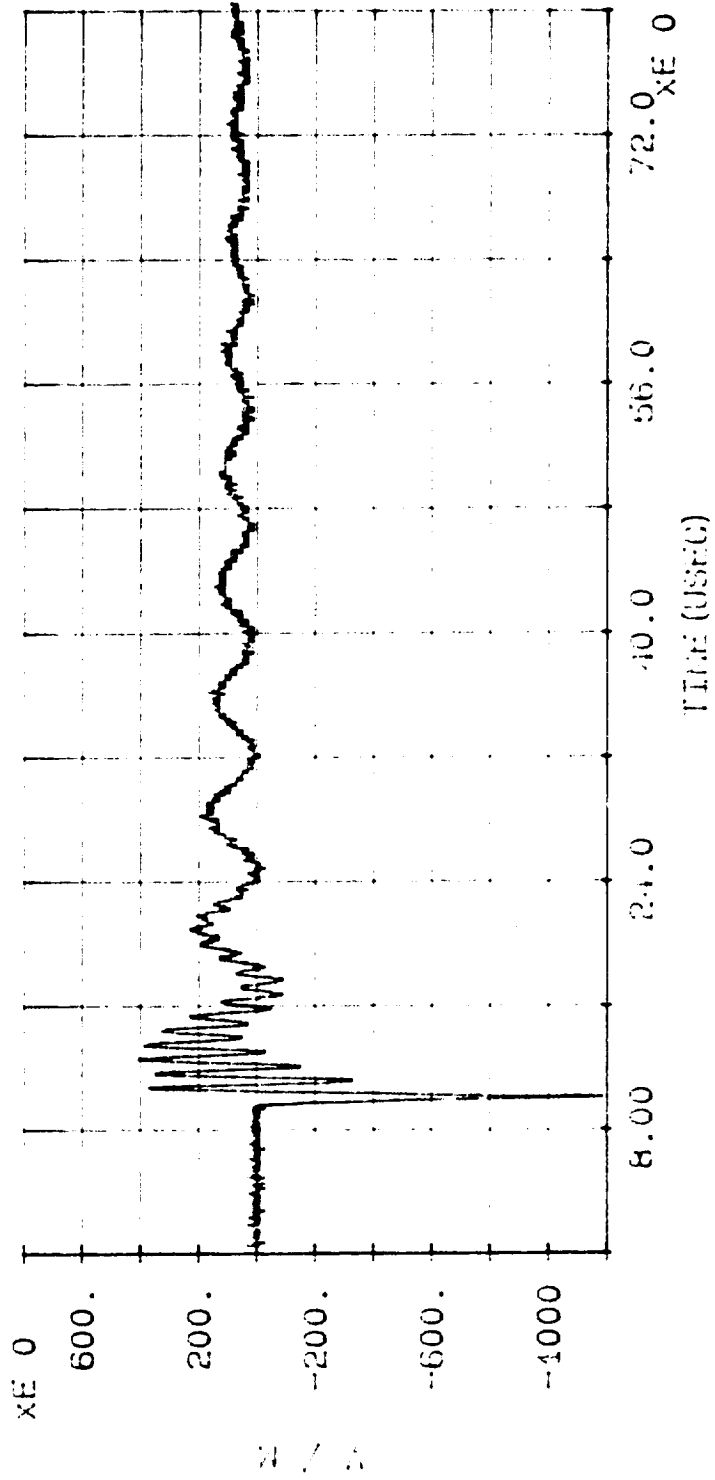
MAX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 17:03:10.49

FILE: C:\CAT\DATA6\ME213.TST

MAX E-field = -1.228E3



ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #29), PLOT #32,
ATTACH POINT #2, DISCHARGE #13

MARX MEASUREMENT: INPUT CURRENT

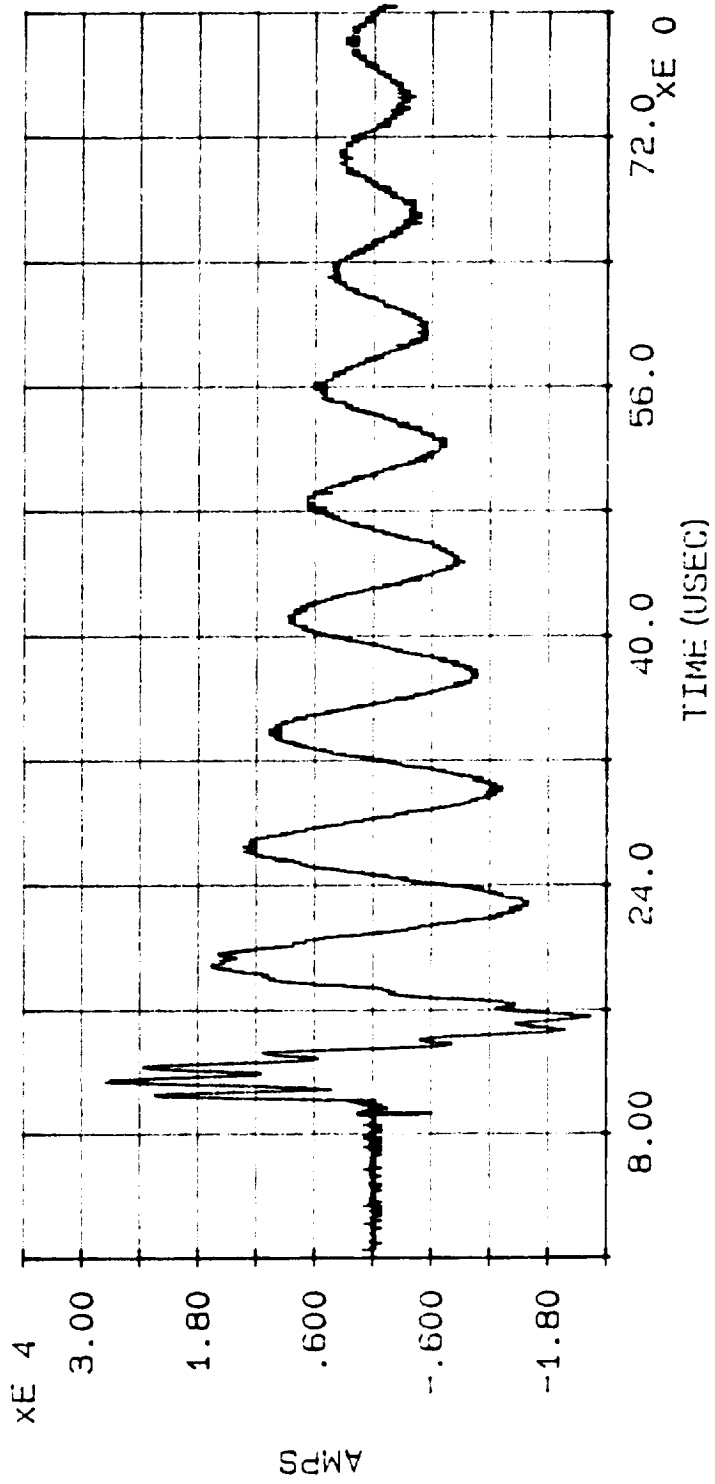
DATE: 06/27/90

TIME: 11:18:06.66

FILE: C:\CAT\DATA6\MI214.TST

MAX CURRENT = 2.900E4

ACTION INTEGRAL = 4.093E3



INJECTION CURRENT WAVEFORM, PLOT #33, ATTACH POINT #2, DISCHARGE #14, CONFIGURATION #1

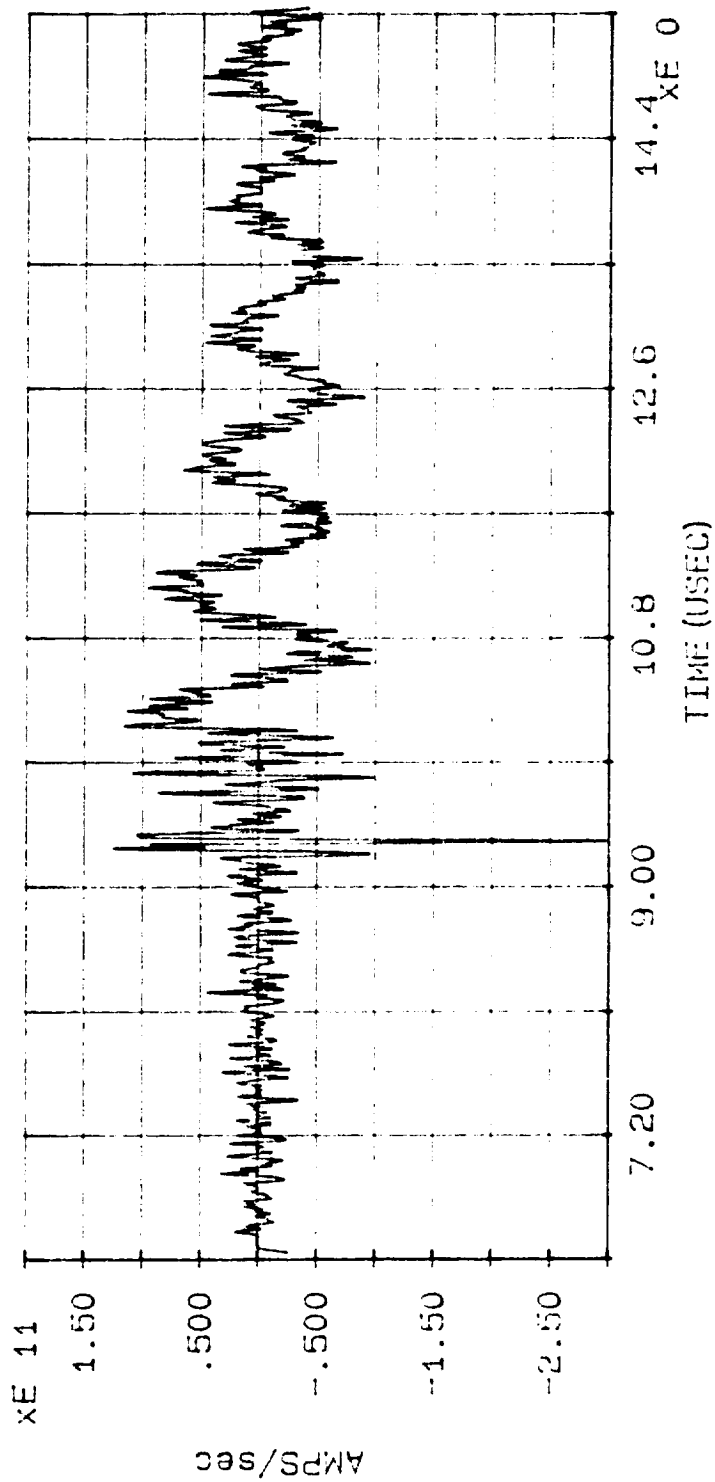
MARX di/dt

DATE: 06/27/90

TIME: 12: 44: 26.63

FILE: C:\CAT\DATA6\MI214.TST

MAX di/dt = -2.979E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #34, ATTACH POINT #2, DISCHARGE #14, CONFIGURATION #1

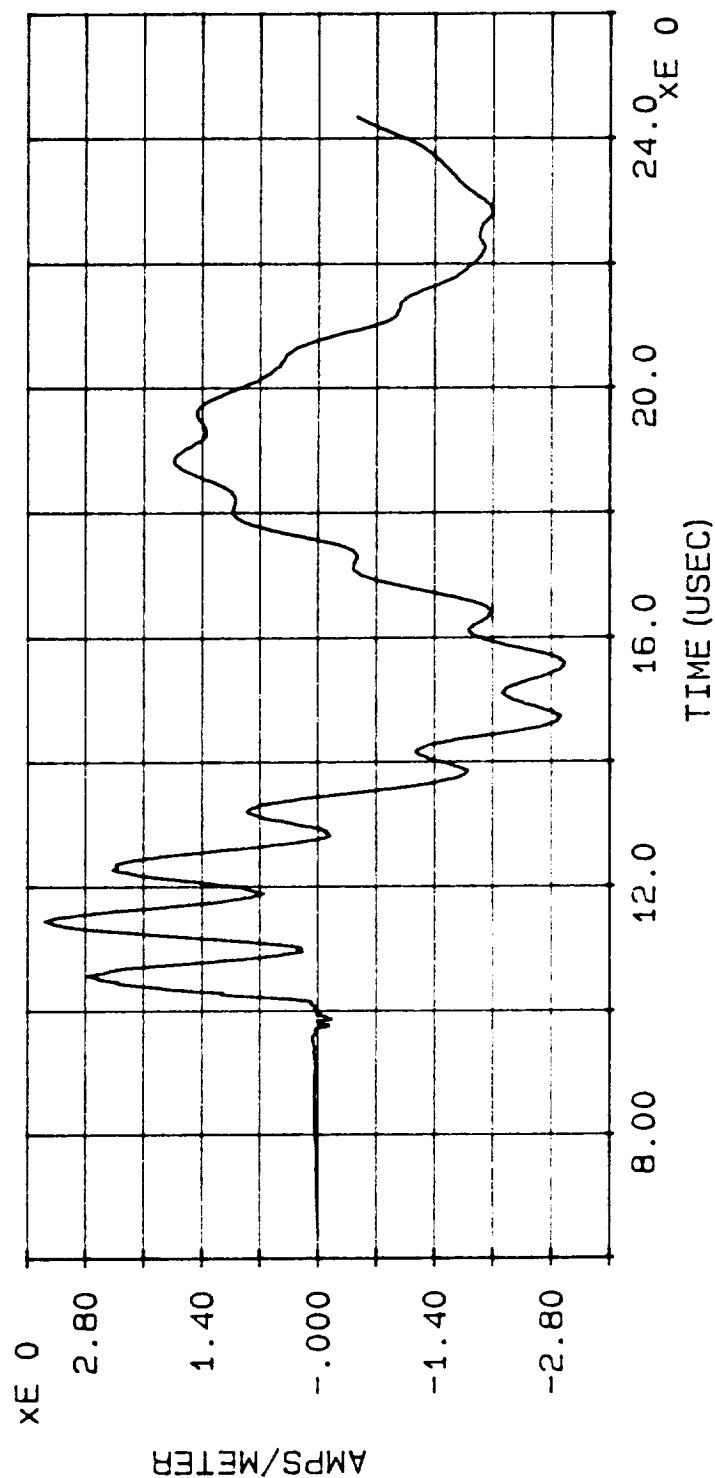
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 13:46:02.95

FILE: C:\CAT\DATA6\MB214.TST

MAX H = 3.295E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #33), PLOT #35, ATTACH POINT #2, DISCHARGE #14

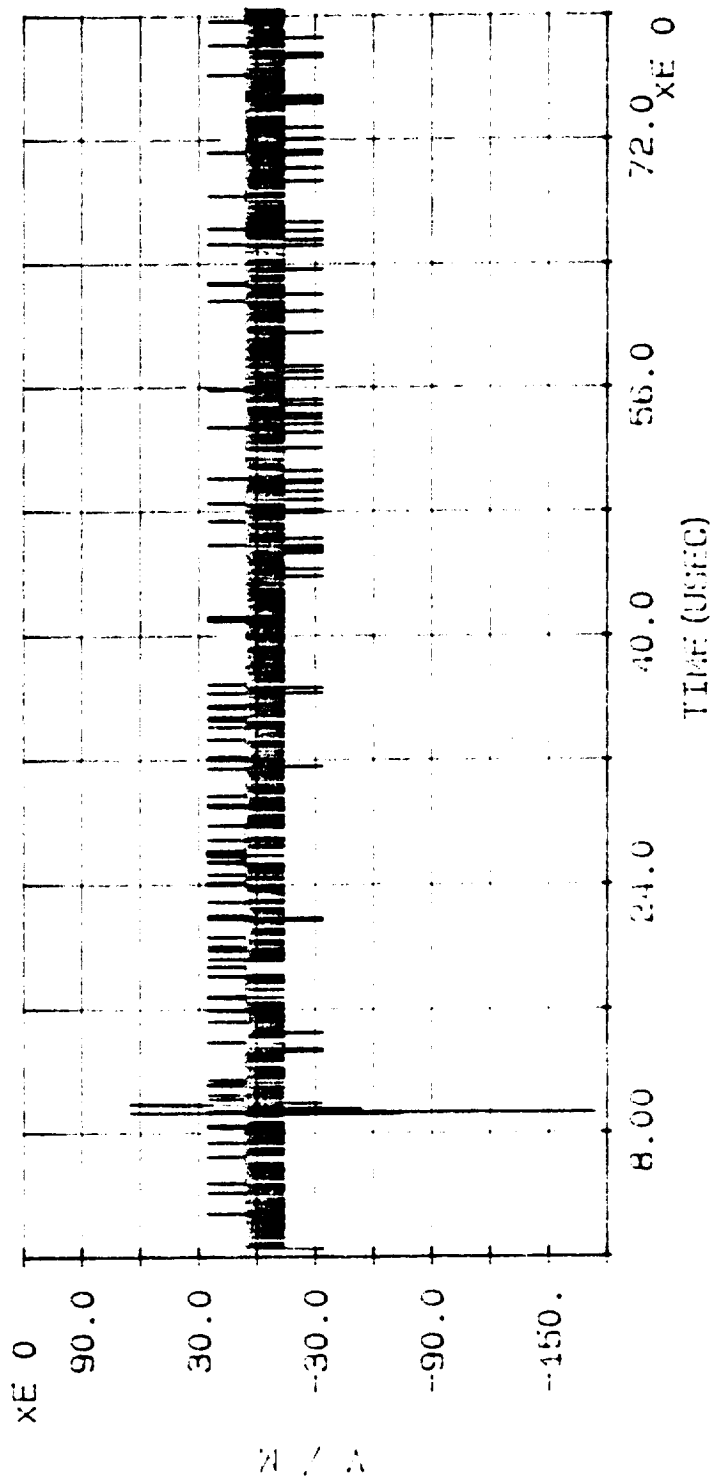
MAX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 17:11:57.12

FILE: C:\CAT\DATA6\ME214.TST

MAX E-field = -1.939E2



ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #33), PLOT #36,
ATTACH POINT #2, DISCHARGE #14

MARX MEASUREMENT: INPUT CURRENT

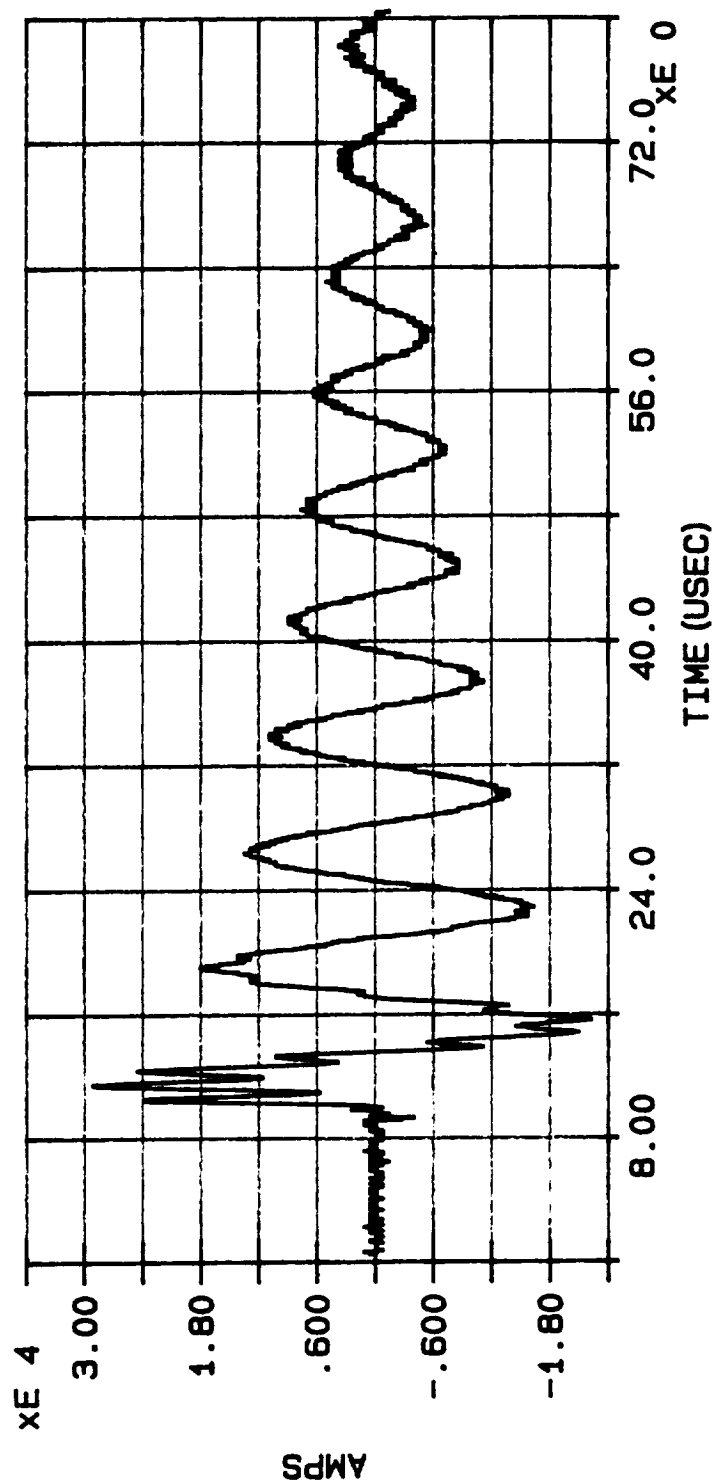
DATE: 06/26/90

TIME: 11:52:23.89

FILE: C:\CAT\DATA6\MI215.TST

MAX CURRENT = 2.981E4

ACTION INTEGRAL = 4.300E3



INJECTION CURRENT WAVEFORM, PLOT #37, ATTACH POINT #2, DISCHARGE #15, CONFIGURATION #1

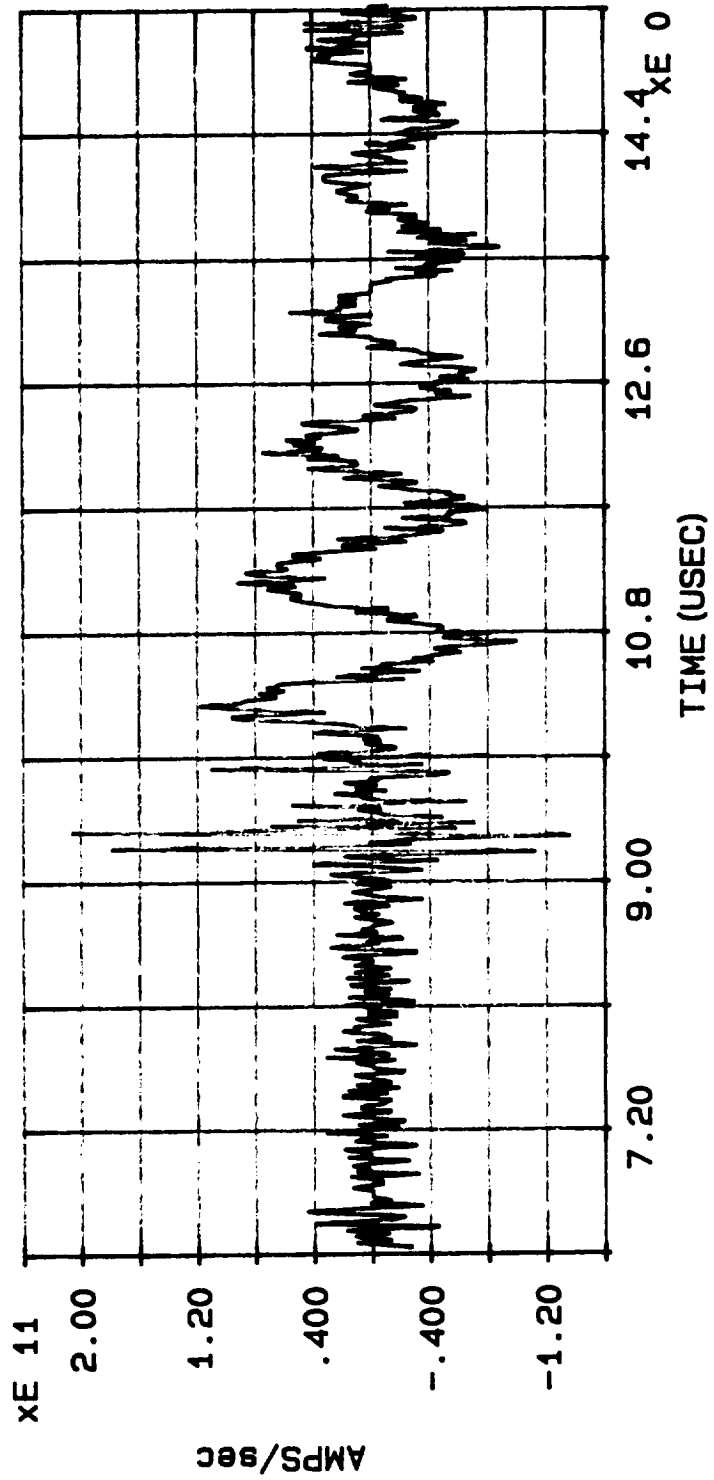
MARX di/dt

DATE: 06/26/90

TIME: 11:36:46.15

FILE: C:\CAT\DATA6\MI215.TST

MAX di/dt = 2.065E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #38, ATTACH POINT #2, DISCHARGE #15, CONFIGURATION #1

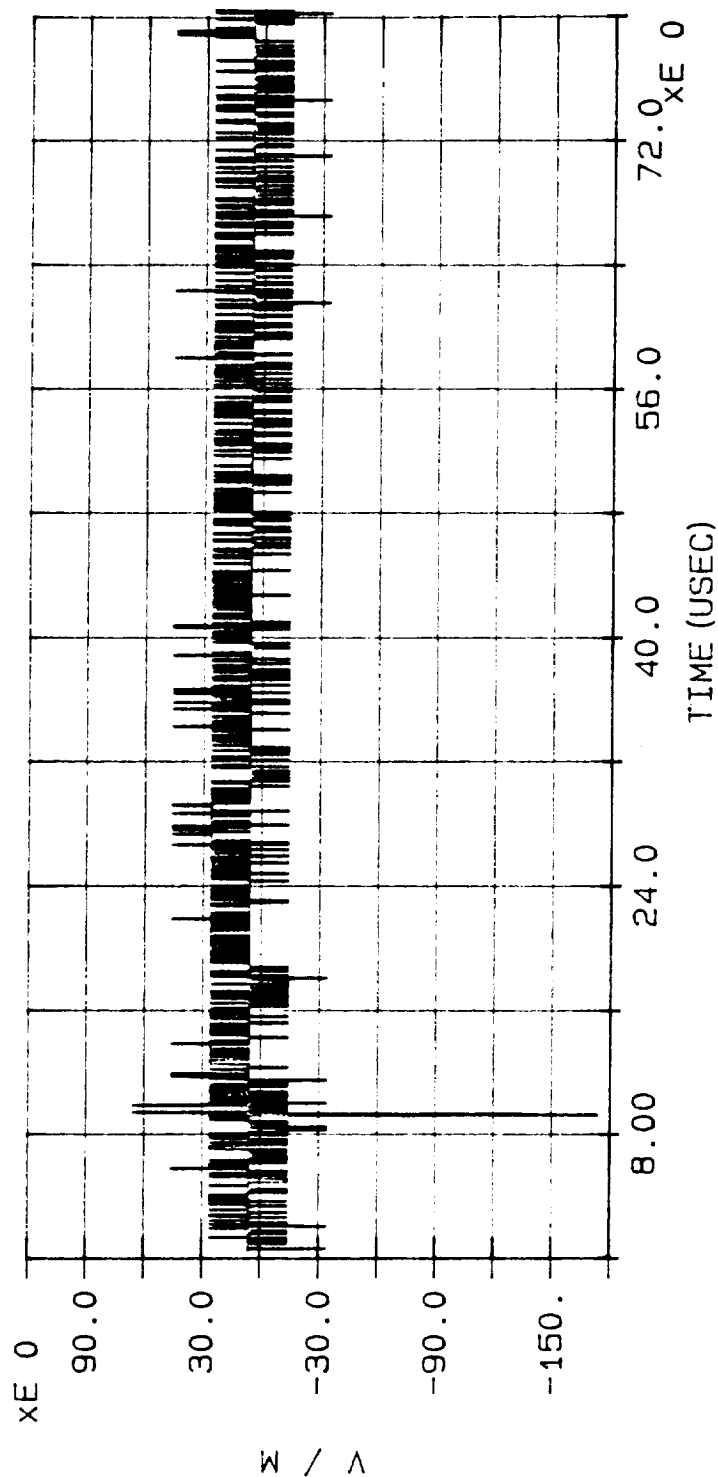
MARX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 09:39:59.47

FILE: C:\CAT\DATA6\ME215.TST

MAX E-field = -2.539E2



RADIAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #37), PLOT #39,
ATTACH POINT #2, DISCHARGE #15

MARX MEASUREMENT: INPUT CURRENT

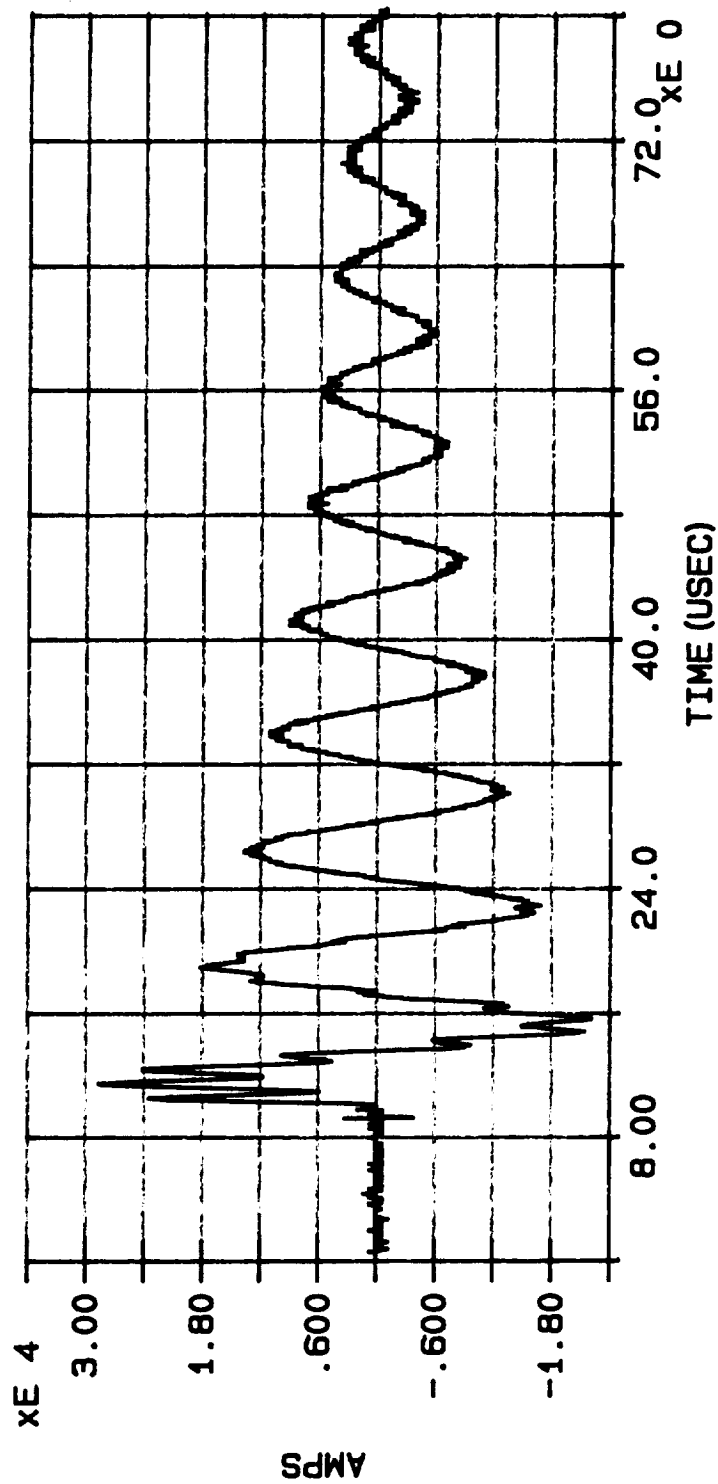
DATE: 06/26/90

TIME: 11:28:35.06

FILE: C:\CAT\DATA6\MI216.TST

MAX CURRENT = 2.933E4

ACTION INTEGRAL = 4.194E3



INJECTION CURRENT WAVEFORM, PLOT #40, ATTACH POINT #2, DISCHARGE #16, CONFIGURATION #1

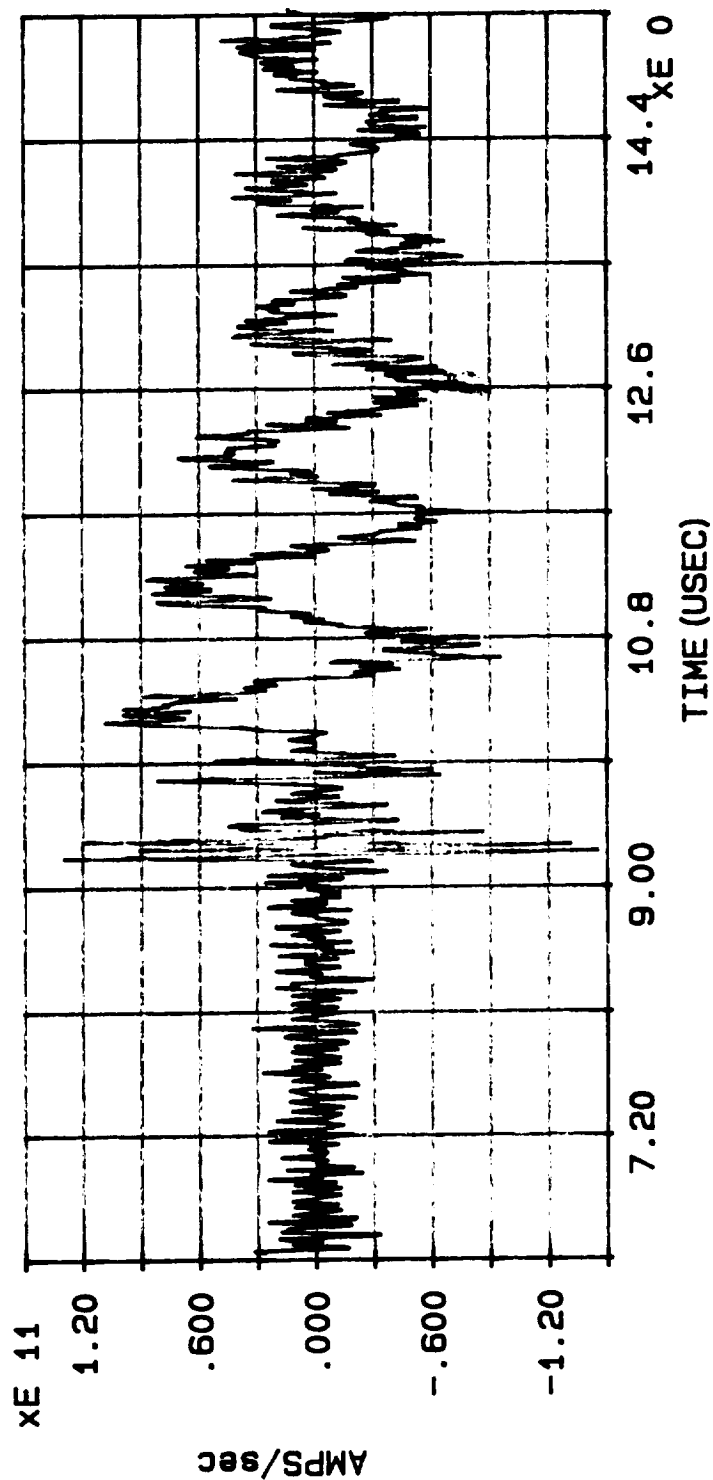
MARX di/dt

DATE: 06/26/90

TIME: 11:33:07.49

FILE: C:\CAT\DATA6\MI216.TST

MAX di/dt = -1.451E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #41, ATTACH POINT #2, DISCHARGE #16, CONFIGURATION #1

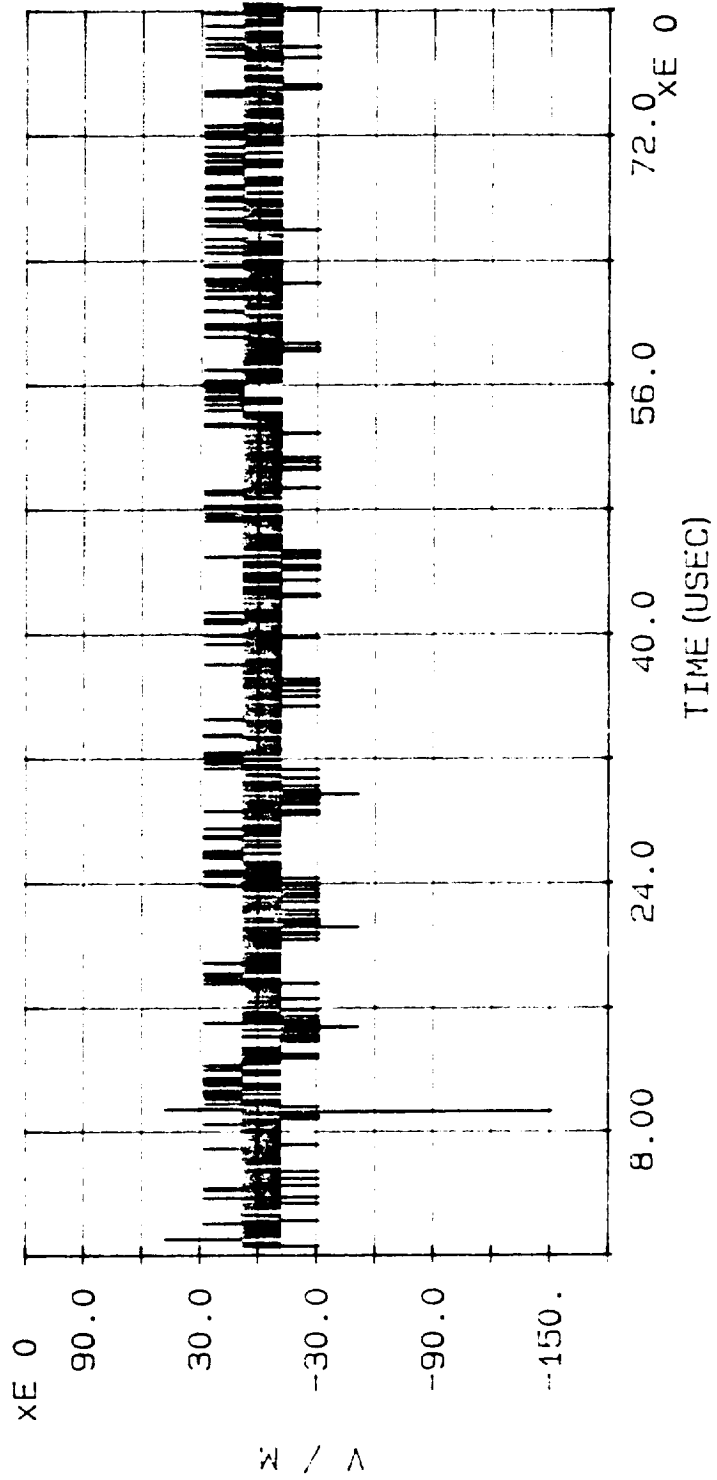
MARX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 09:43:54.28

FILE: C:\CAT\DATA6\ME216.TST

MAX E-field = -1.515E2



RADIAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #40), PLOT #42,
ATTACH POINT #2, DISCHARGE #16

MARX MEASUREMENT: INPUT CURRENT

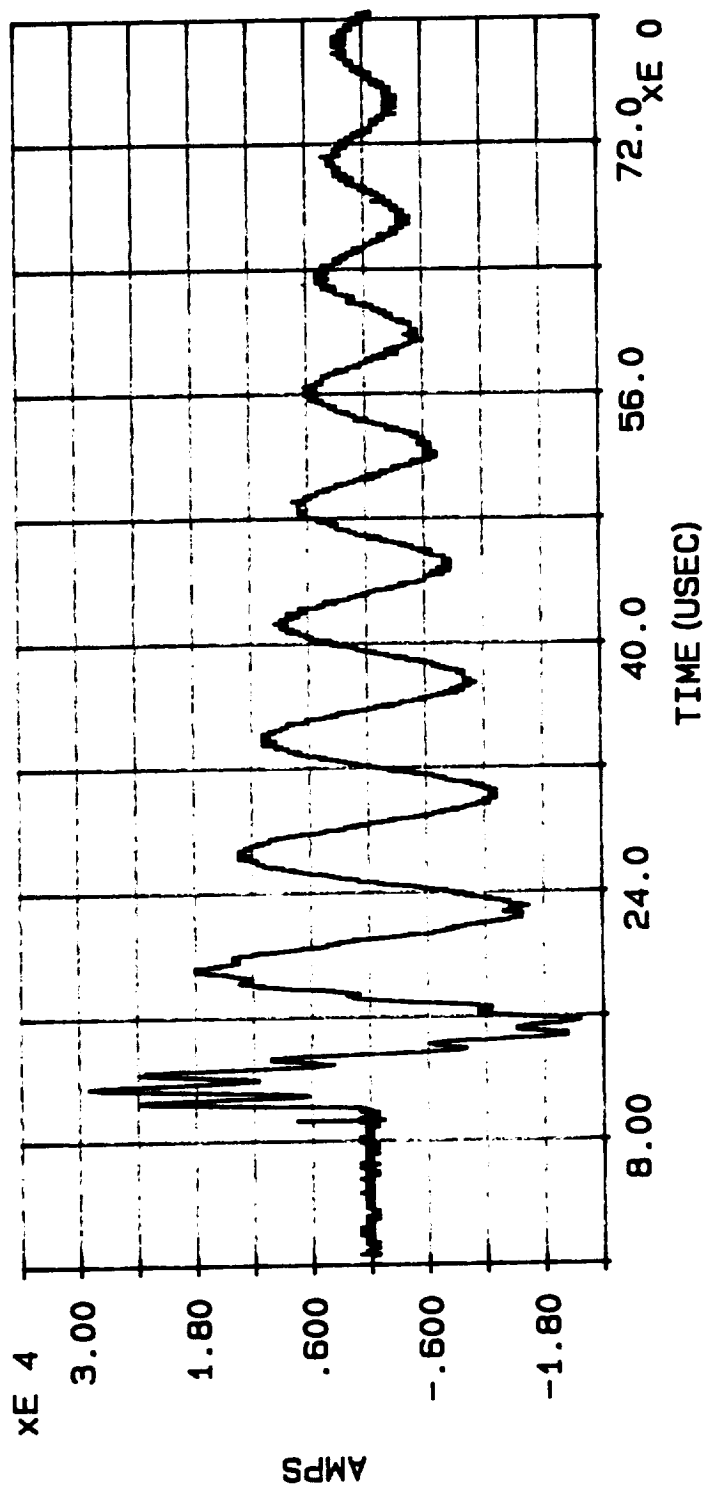
DATE: 06/26/90

TIME: 14:41:36.05

FILE: C:\CAT\DATA6\MI317.TST

MAX CURRENT = 2.910E4

ACTION INTEGRAL = 4.264E3



INJECTION CURRENT WAVEFORM, PLOT #43, ATTACH POINT #3, DISCHARGE #17, CONFIGURATION #1

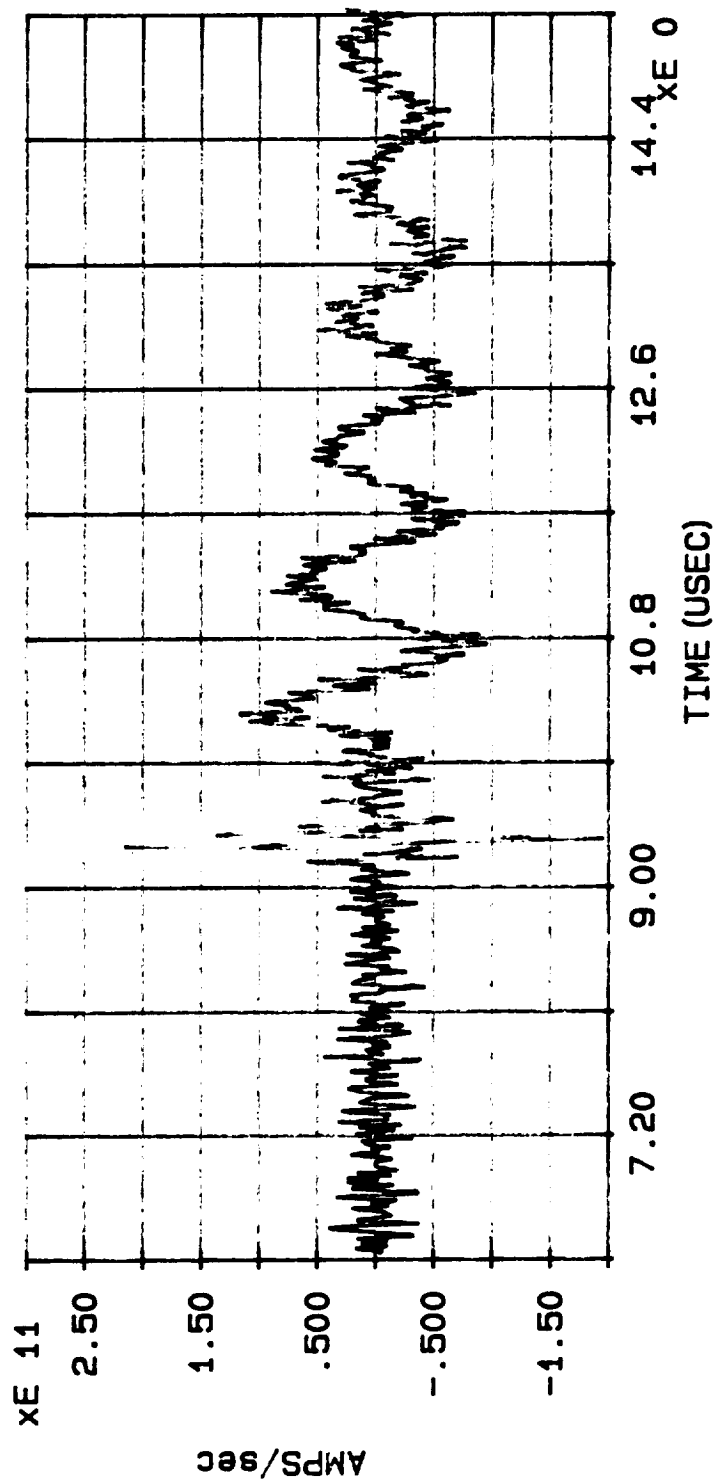
MARX di/dt

DATE: 06/26/90

TIME: 14: 46: 03.15

FILE: C:\CAT\DATA6\MI317.TST

MAX di/dt = 2.153E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #44, ATTACH POINT #3, DISCHARGE #17, CONFIGURATION #1

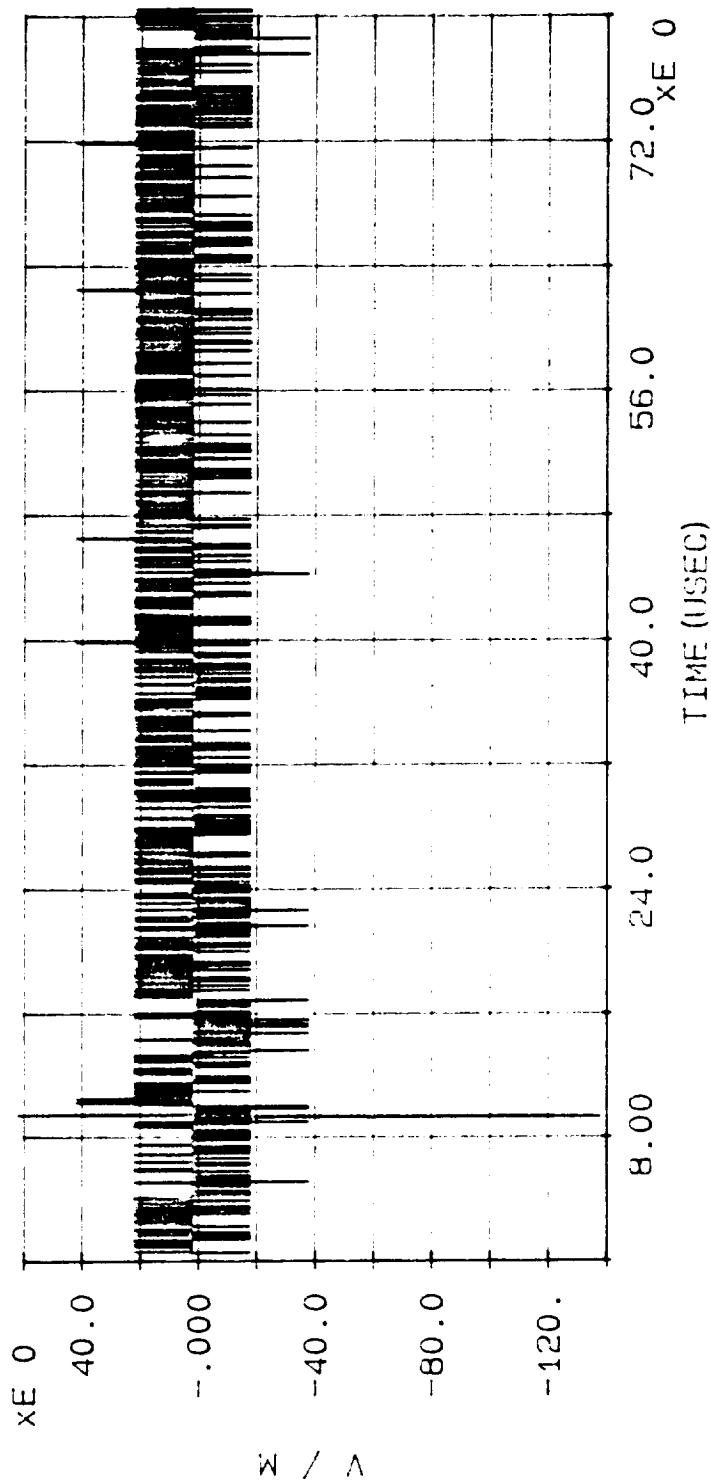
MARX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 09: 47: 44.74

FILE: C:\CAT\DATA6\ME317.TST

MAX E-field = -2.177E2



RADIAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #43), PLOT #45,
ATTACH POINT #3, DISCHARGE #17

MARX MEASUREMENT: INPUT CURRENT

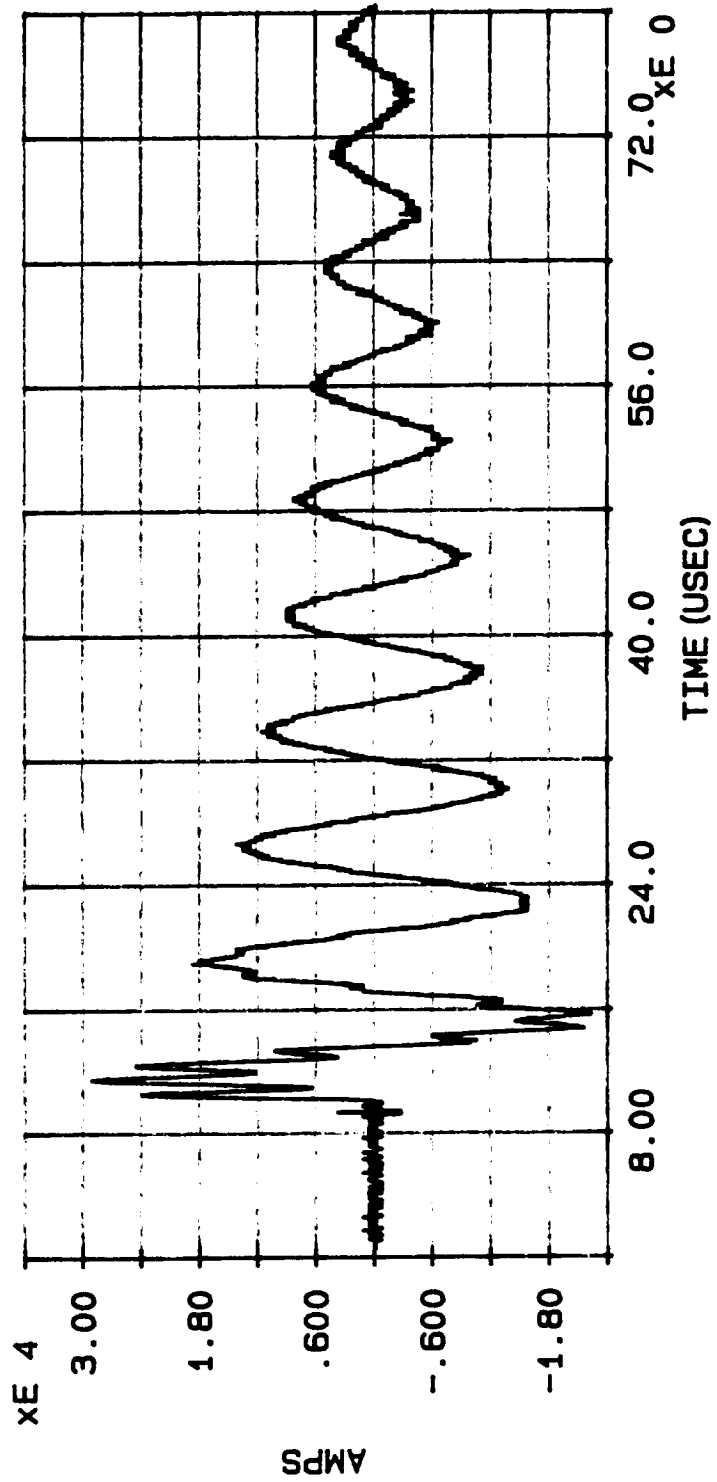
DATE: 06/26/90

TIME: 14:37:34.10

FILE: C:\CAT\DATA6\MI318.TST

MAX CURRENT = 2.978E4

ACTION INTEGRAL = 4.440E3



INJECTION CURRENT WAVEFORM, PLOT #45, ATTACH POINT #3, DISCHARGE #18, CONFIGURATION #1

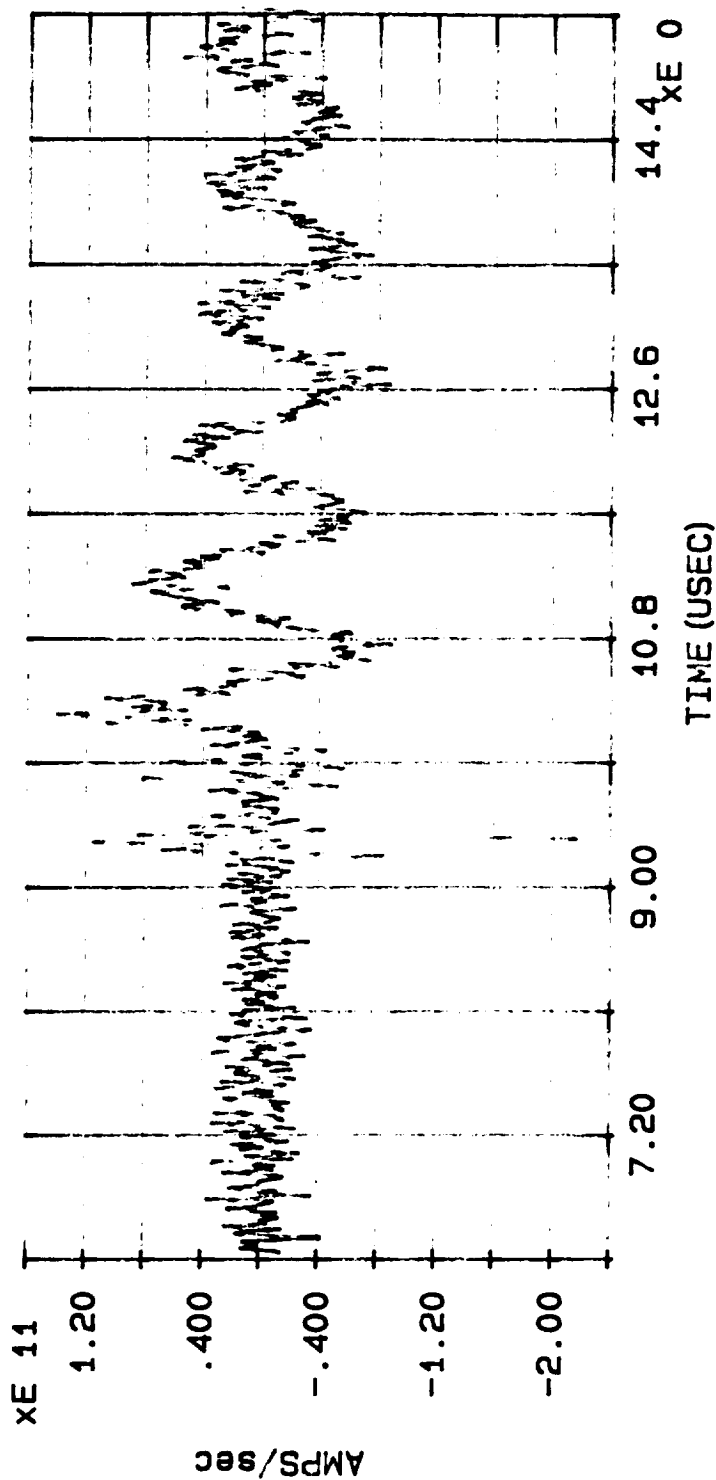
MARX di/dt

DATE: 06/26/90

TIME: 14: 49: 36.64

FILE: C:\CAT\DATA6\MI318.TST

MAX di/dt = -2.166E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #46, ATTACH POINT #3, DISCHARGE #18, CONFIGURATION #1

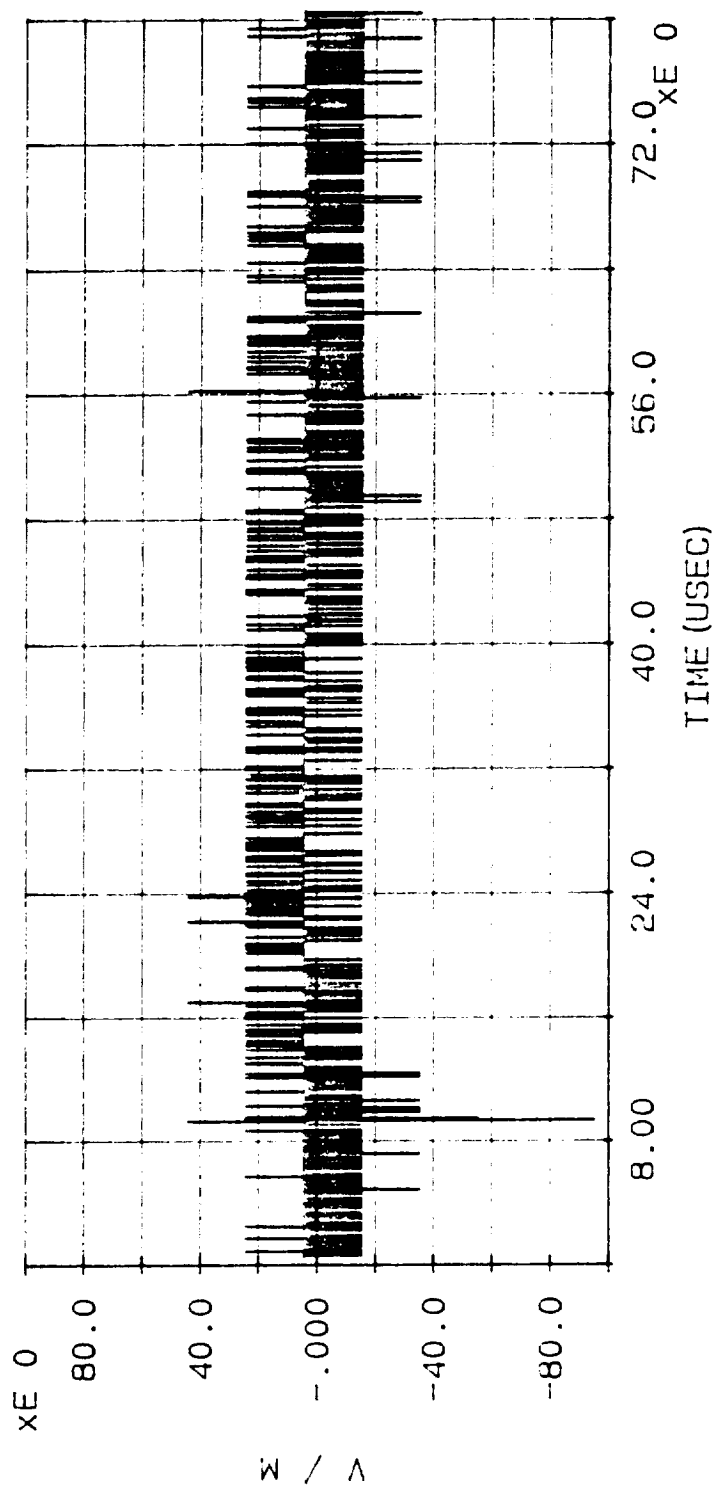
MARX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 09:51:45.65

FILE: C:\CAT\DATA6\ME318.TST

MAX E-field = 1.847E2



RADIAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #45), PLOT #47,
ATTACH POINT #3, DISCHARGE #18

MARX MEASUREMENT: INPUT CURRENT

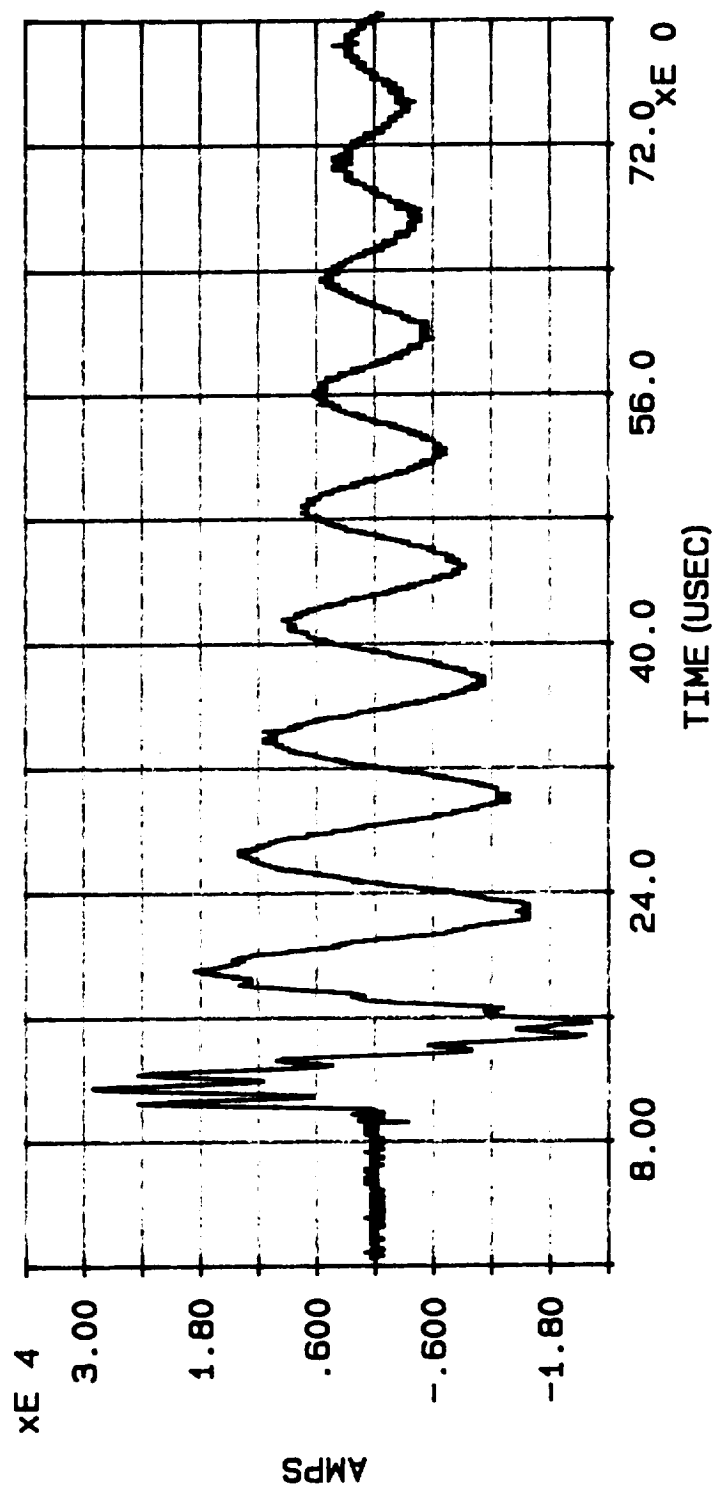
DATE: 06/26/90

TIME: 14:33:21.77

FILE: C:\CAT\DATA6\MI319.TST

MAX CURRENT = 2.972E4

ACTION INTEGRAL = 4.439E3



INJECTION CURRENT WAVEFORM, PLOT #48, ATTACH POINT #3, DISCHARGE #19, CONFIGURATION #1

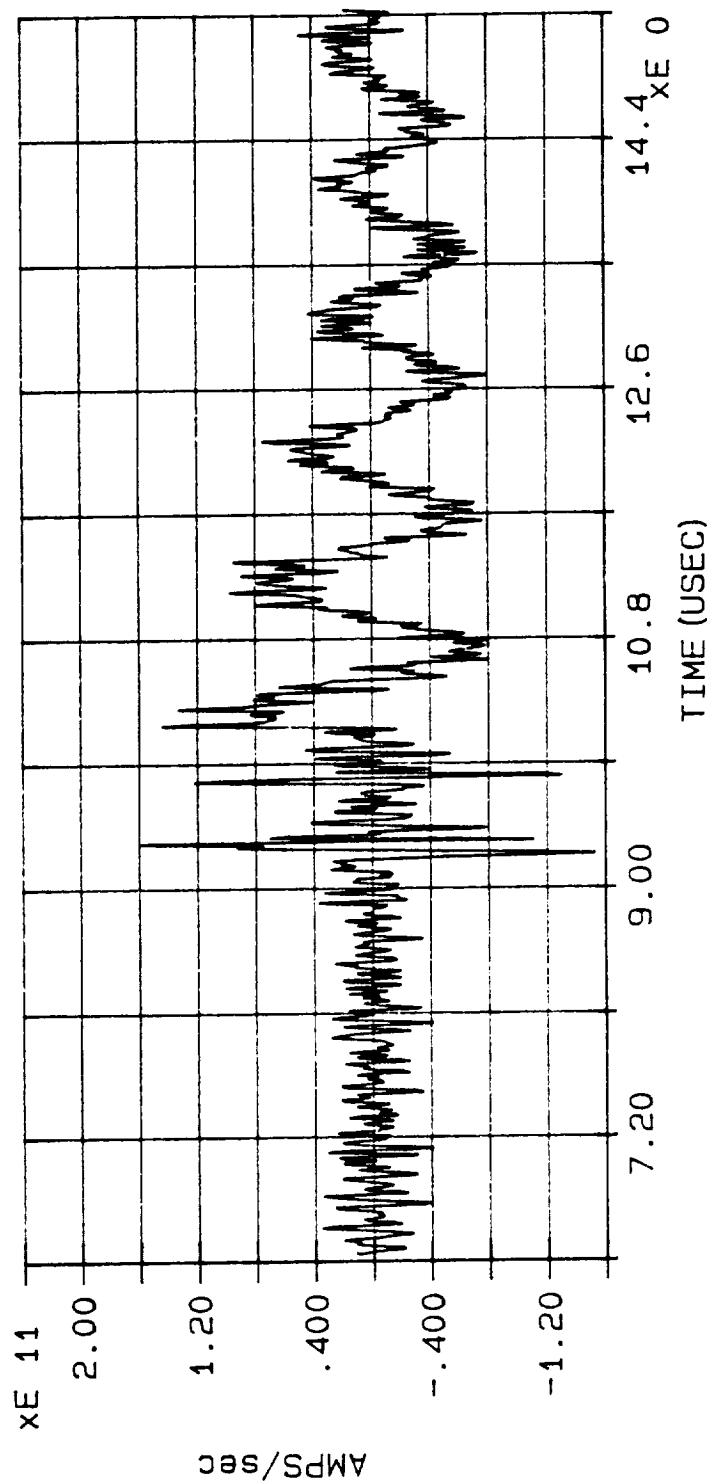
MARX di/dt

DATE: 06/26/90

TIME: 16:23:10.74

FILE: C:\CAT\DATA6\MI319.TST

MAX di/dt = 1.587E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #49, ATTACH POINT #3, DISCHARGE #19, CONFIGURATION #1

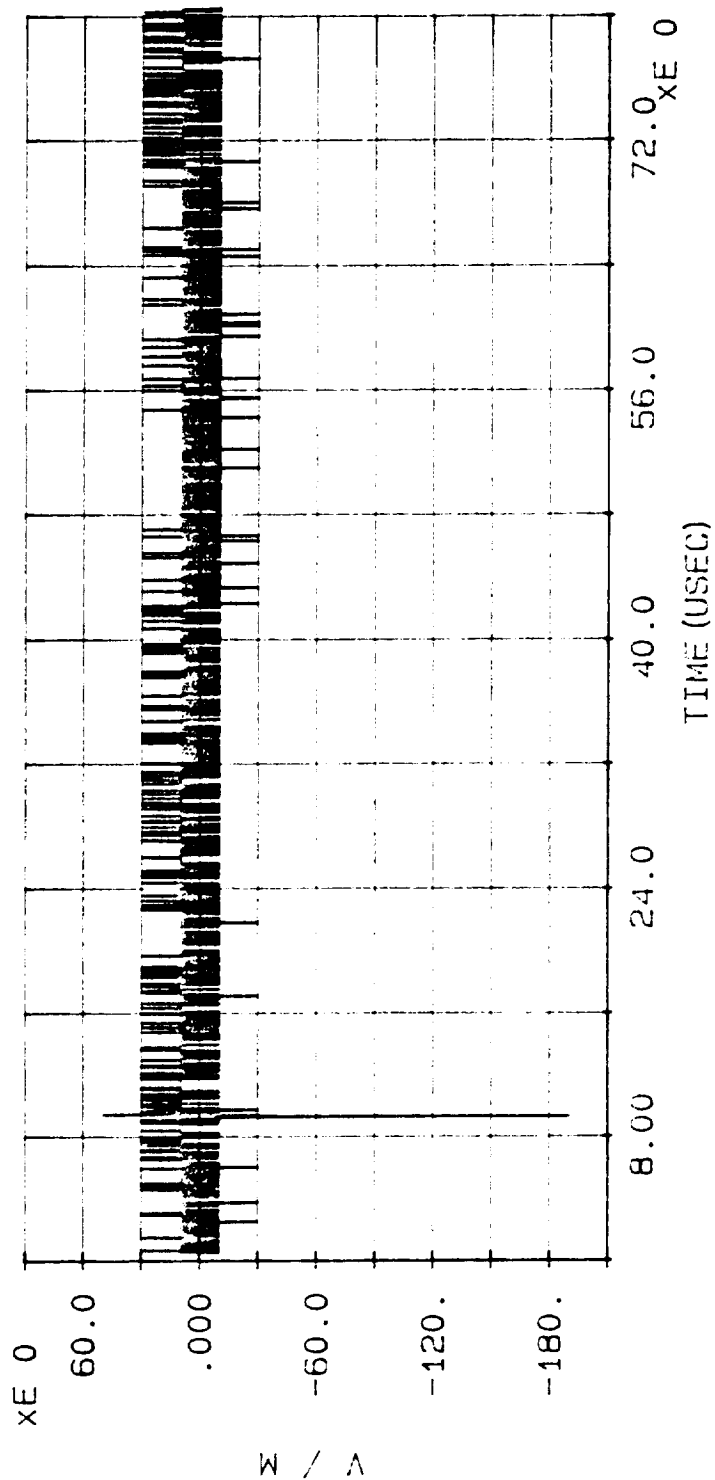
MARX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 09:55:40.78

FILE: C:\CAT\DATA6\ME319.TST

MAX E-field = -1.900E2



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #48), PLOT #50,
ATTACH POINT #3, DISCHARGE #19

MARX MEASUREMENT: INPUT CURRENT

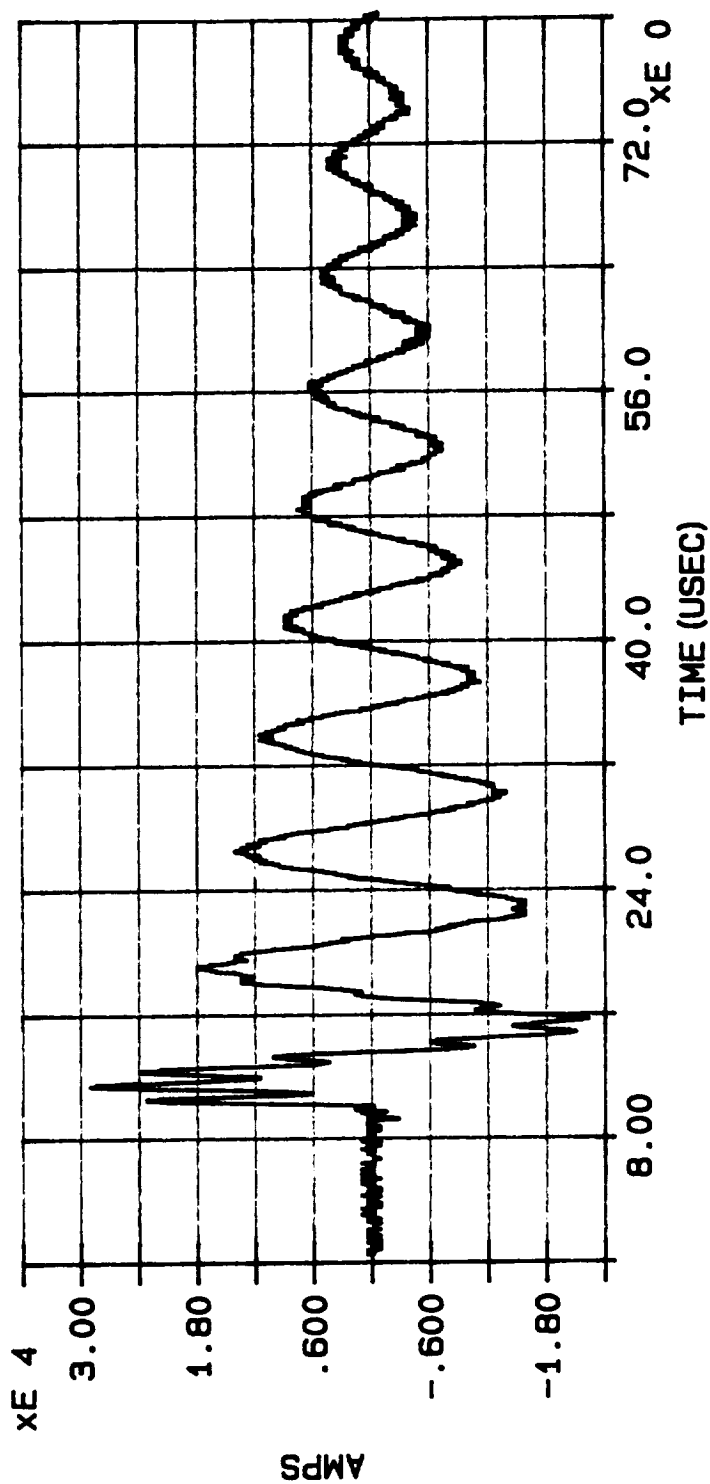
DATE: 06/26/90

TIME: 14:29:06.20

FILE: C:\CAT\DATA6\MI320.TST

MAX CURRENT = 2.908E4

ACTION INTEGRAL = 4.355E3



INJECTION CURRENT WAVEFORM, PLOT #51, ATTACH POINT #3, DISCHARGE #20, CONFIGURATION #1

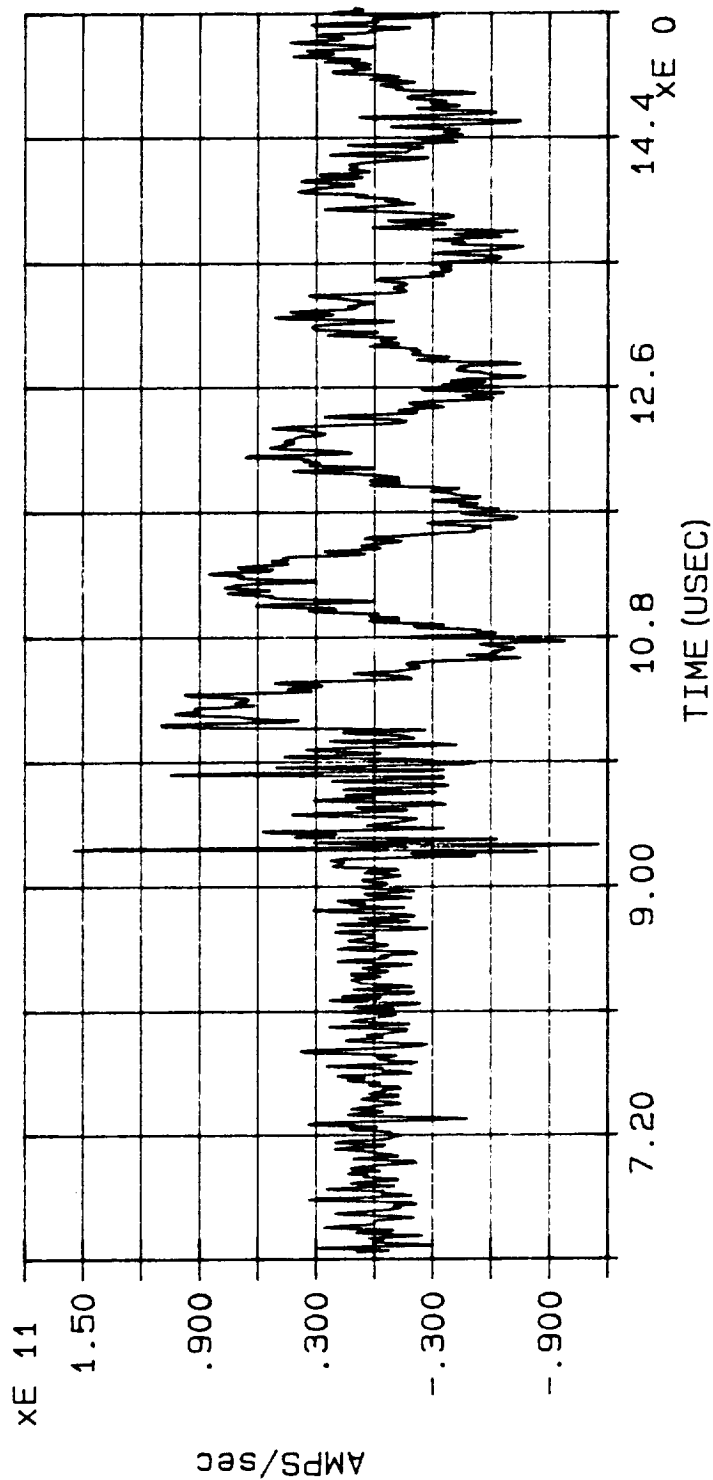
MARX di/dt

DATE: 06/26/90

TIME: 16:32:23.18

FILE: C:\CAT\DATA6\MI320.TST

MAX di/dt = 1.551E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #52, ATTACH POINT #3, DISCHARGE #20, CONFIGURATION #1

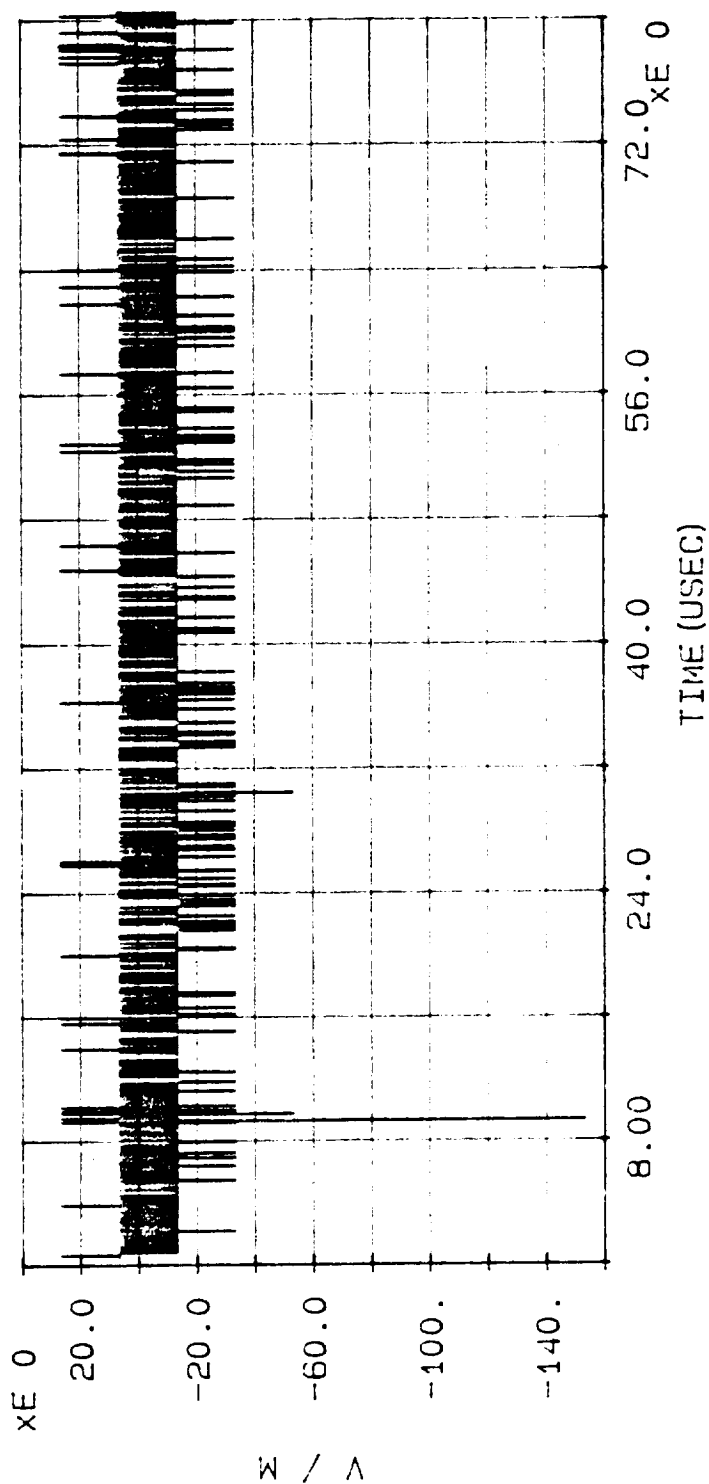
MARX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 09:59:51.24

FILE: C:\CAT\DATA6\ME320.TST

MAX E-field = -1.532E2



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #51), PLOT #53,
ATTACH POINT #3, DISCHARGE #20

MARX MEASUREMENT: INPUT CURRENT

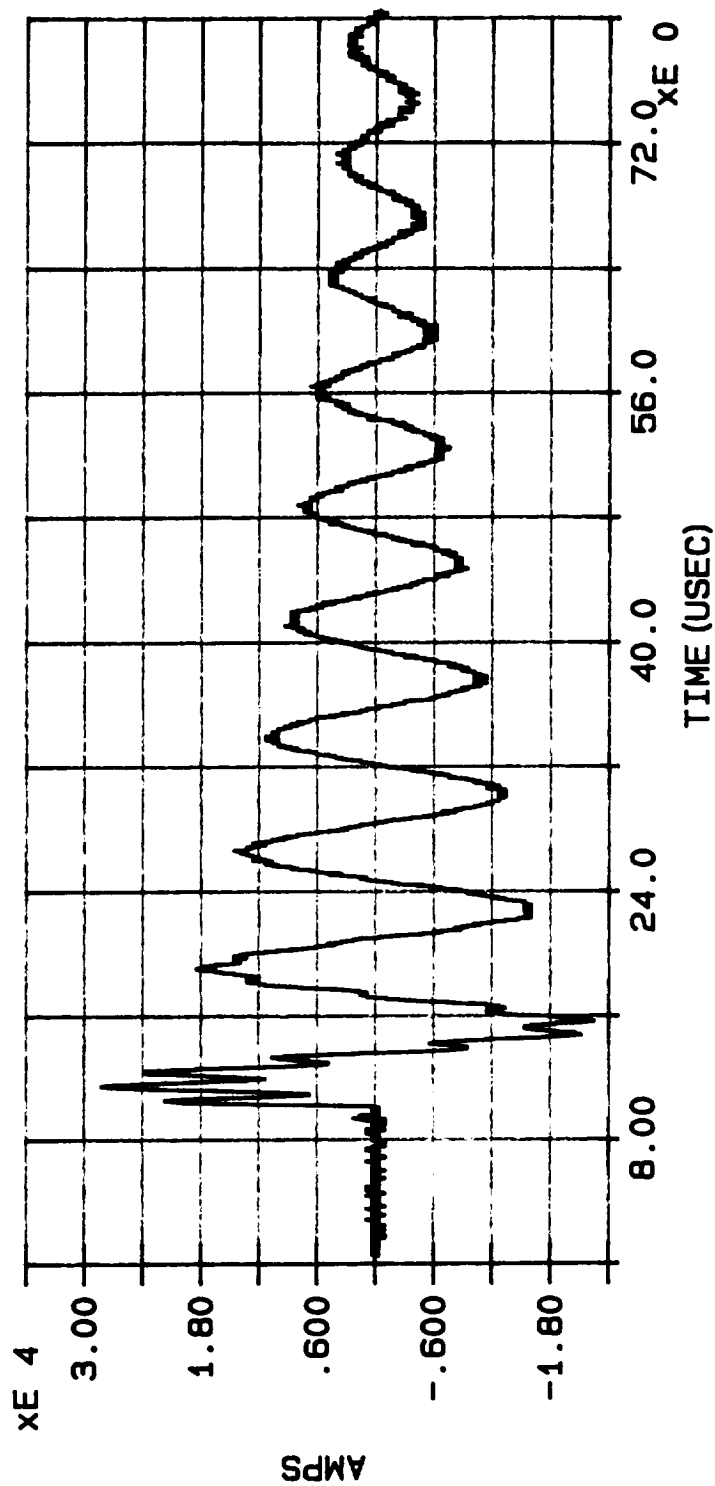
DATE: 06/26/90

TIME: 12:37:22.27

FILE: C:\CAT\DATA6\MI321.TST

MAX CURRENT = 2.892E4

ACTION INTEGRAL = 4.416E3



INJECTION CURRENT WAVEFORM, PLOT #54, ATTACH POINT #3, DISCHARGE #21, CONFIGURATION #1

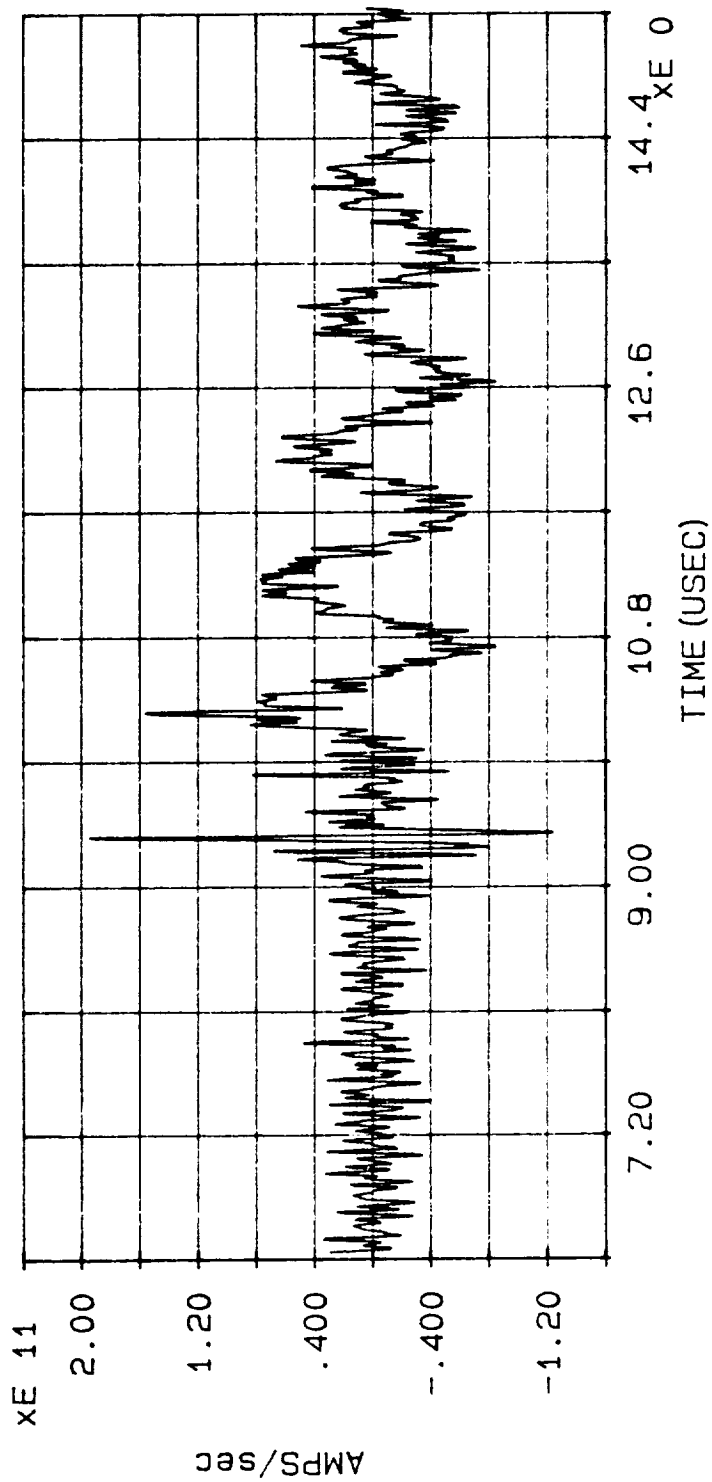
MARX di/dt

DATE: 06/26/90

TIME: 16:35:57.83

FILE: C:\CAT\DATA6\MI321.TST

MAX di/dt = 1.942E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #55, ATTACH POINT #3, DISCHARGE #21, CONFIGURATION #1

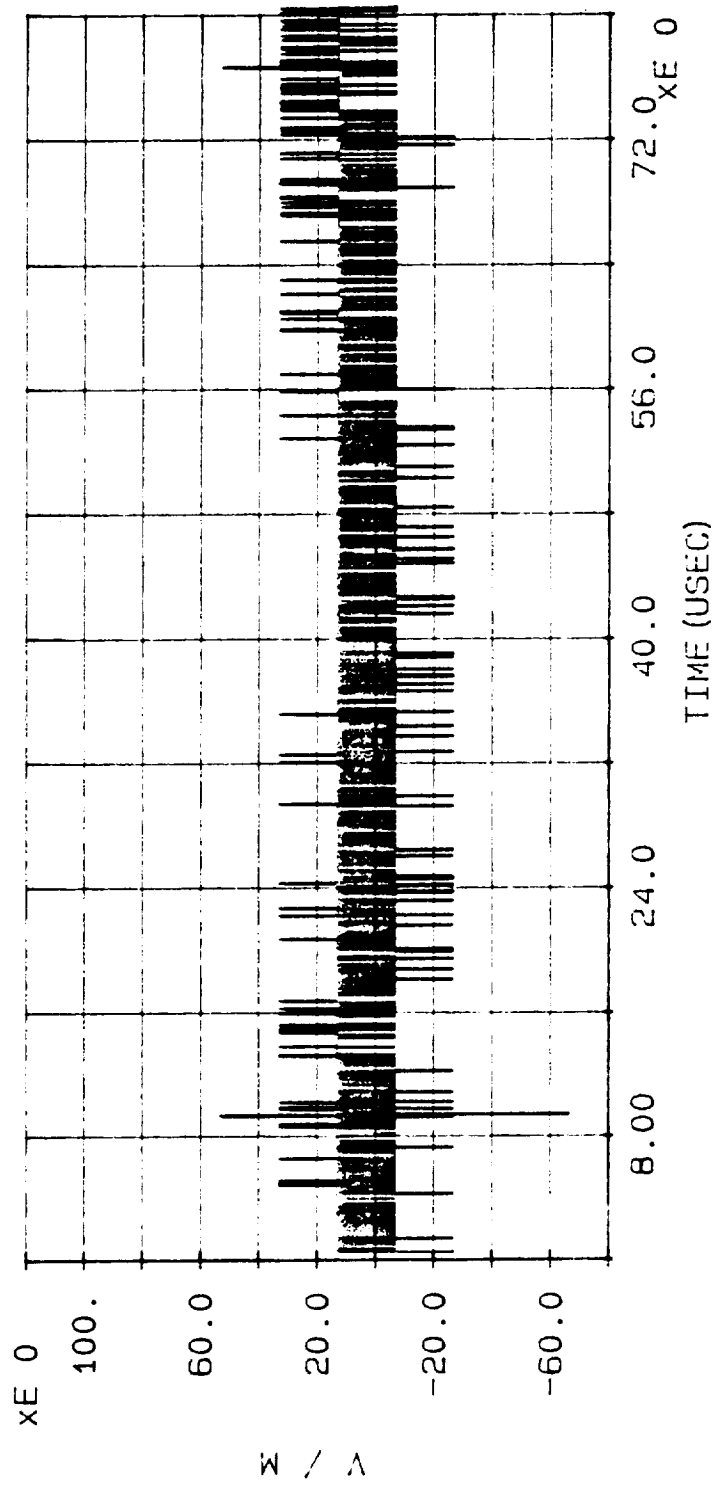
MARX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 10:04:09.56

FILE: C:\CAT\DATA6\ME321.TST

MAX E-field = -1.667E2



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #54), PLOT #56,
ATTACH POINT #3, DISCHARGE #21

MARX MEASUREMENT: INPUT CURRENT

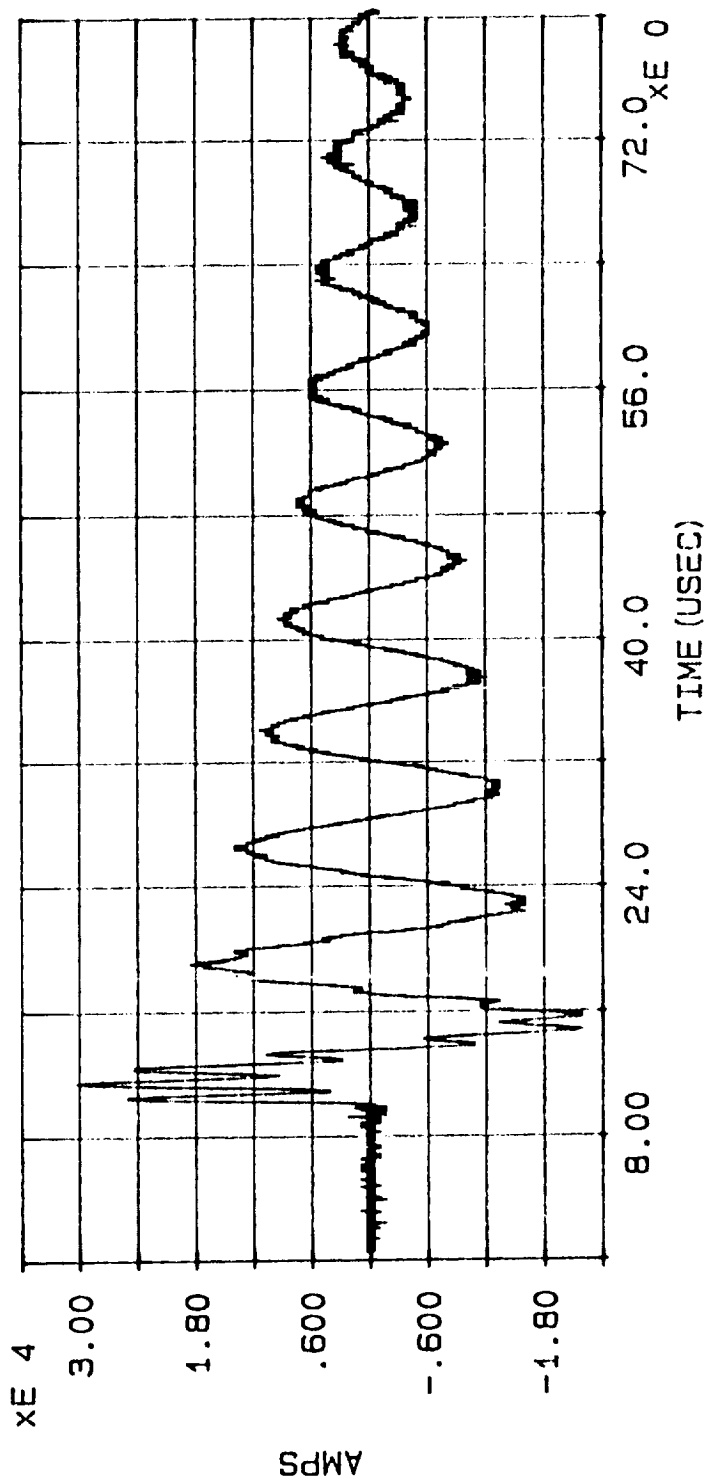
DATE: 06/26/90

TIME: 15:05:20.10

FILE: C:\CAT\DATA6\MI422.TST

MAX CURRENT = 3.089E4

ACTION INTEGRAL = 4.494E3



INJECTION CURRENT WAVEFORM, PLOT #57, ATTACH POINT #4, DISCHARGE #22, CONFIGURATION #1

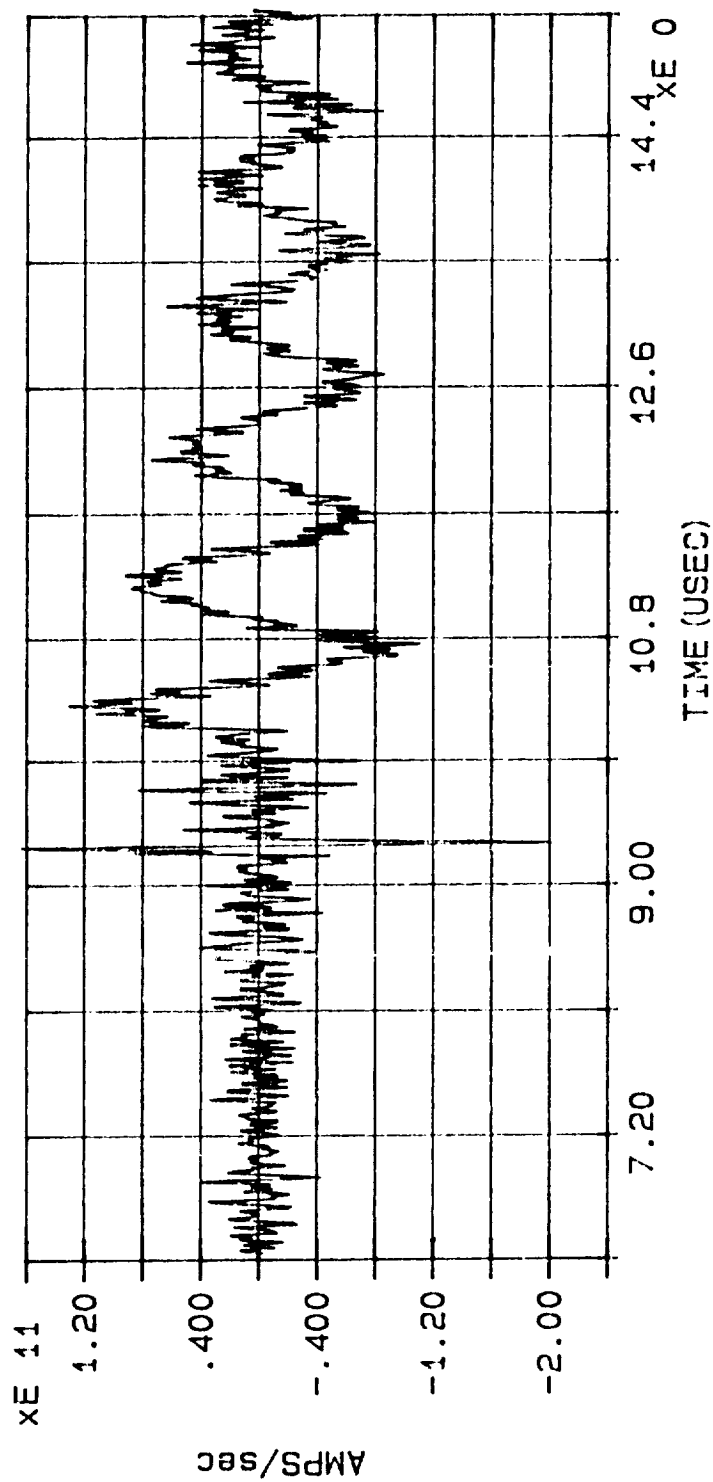
MARX di/dt

DATE: 06/26/90

TIME: 15:02:18.96

FILE: C:\CAT\DATA6\MI422.TST

MAX di/dt = -2.007E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #58, ATTACH POINT #4, DISCHARGE #22, CONFIGURATION #1

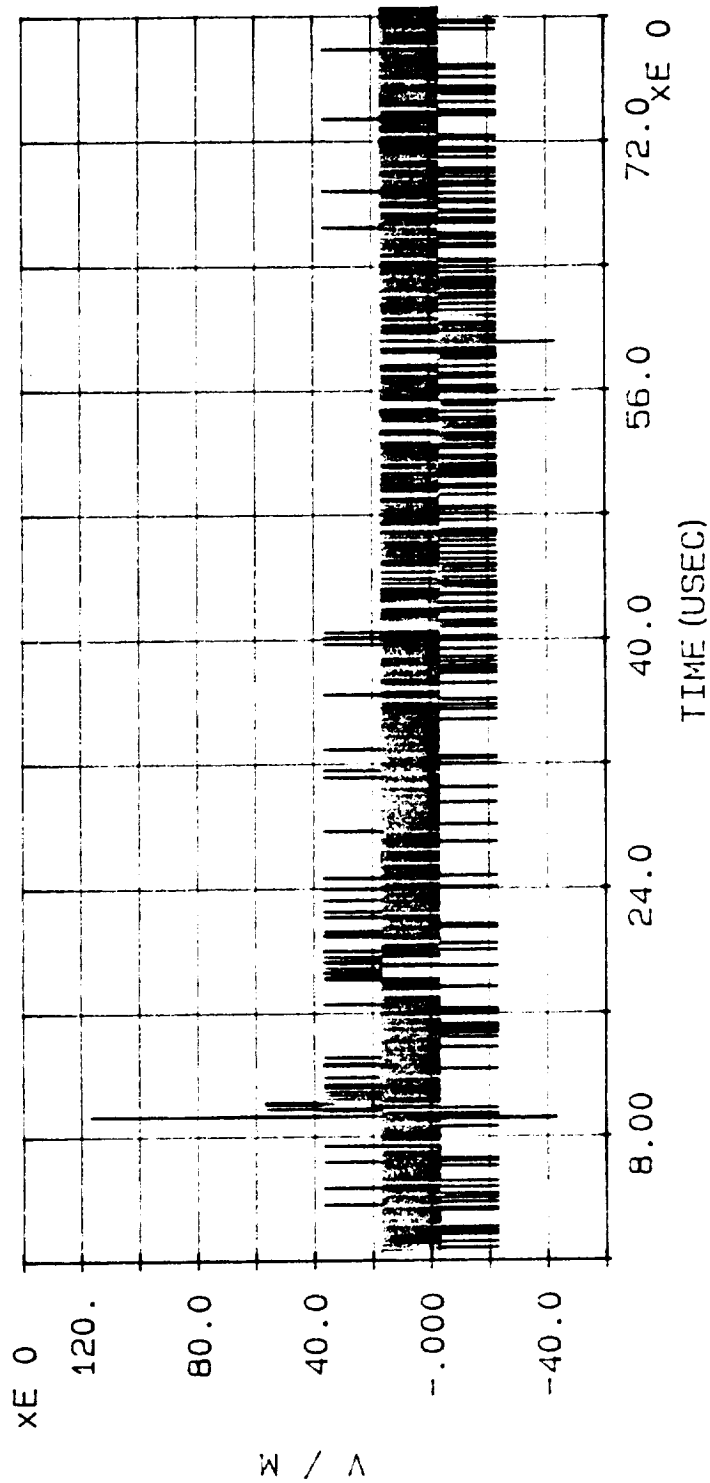
MARX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 10:08:35.62

FILE: C:\CAT\DATA6\ME422.TST

MAX E-field = 1.571E2



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #57), PLOT #59,
ATTACH POINT #4, DISCHARGE #22

MARX MEASUREMENT: INPUT CURRENT

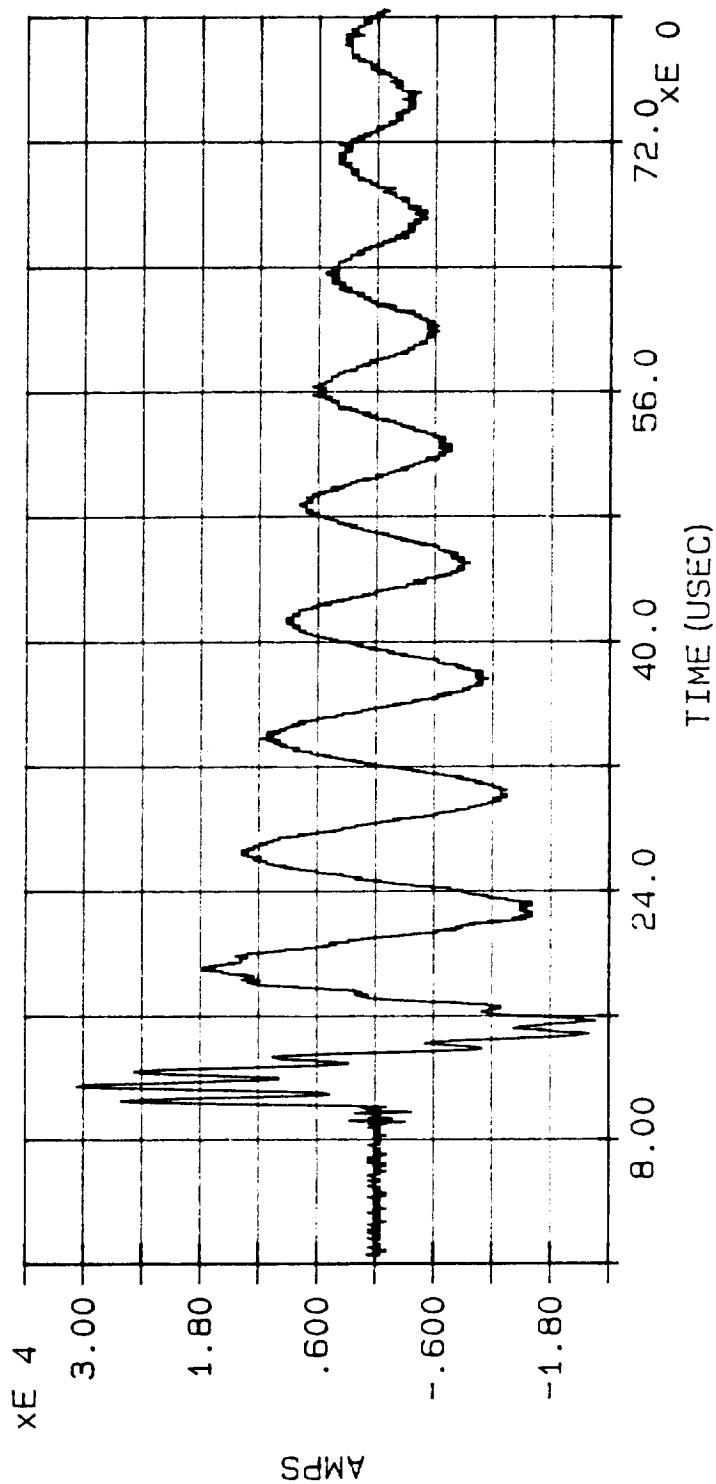
DATE: 06/26/90

TIME: 18:06:07.50

FILE: C:\CAT\DATA6\MI423.TST

MAX CURRENT = 3.138E4

ACTION INTEGRAL = 4.464E3



INJECTION CURRENT WAVEFORM, PLOT #60, ATTACH POINT #4, DISCHARGE #23, CONFIGURATION #1

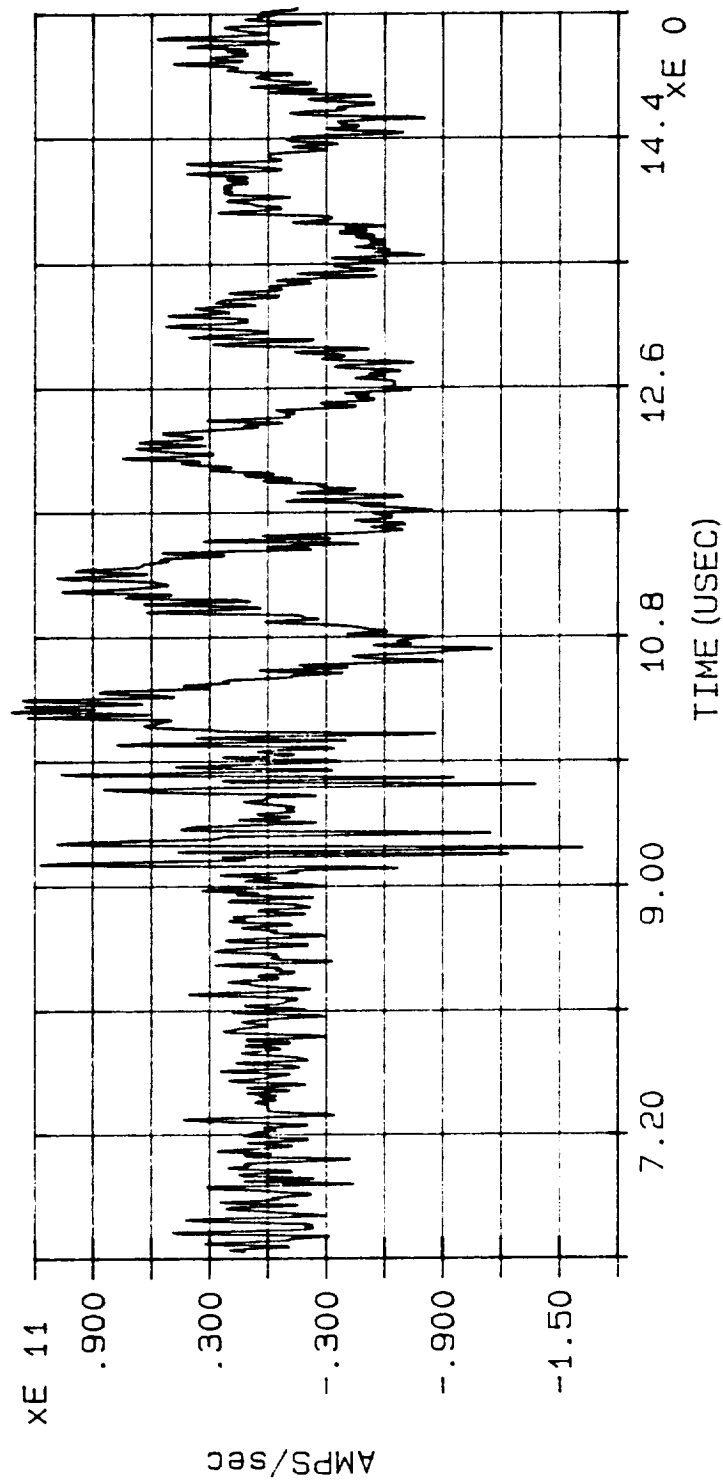
MARX di/dt

DATE: 06/26/90

TIME: 17:31:37.30

FILE: C:\CAT\DATA6\MI423.TST

MAX di/dt = -1.620E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #61, ATTACH POINT #4, DISCHARGE #23, CONFIGURATION #1

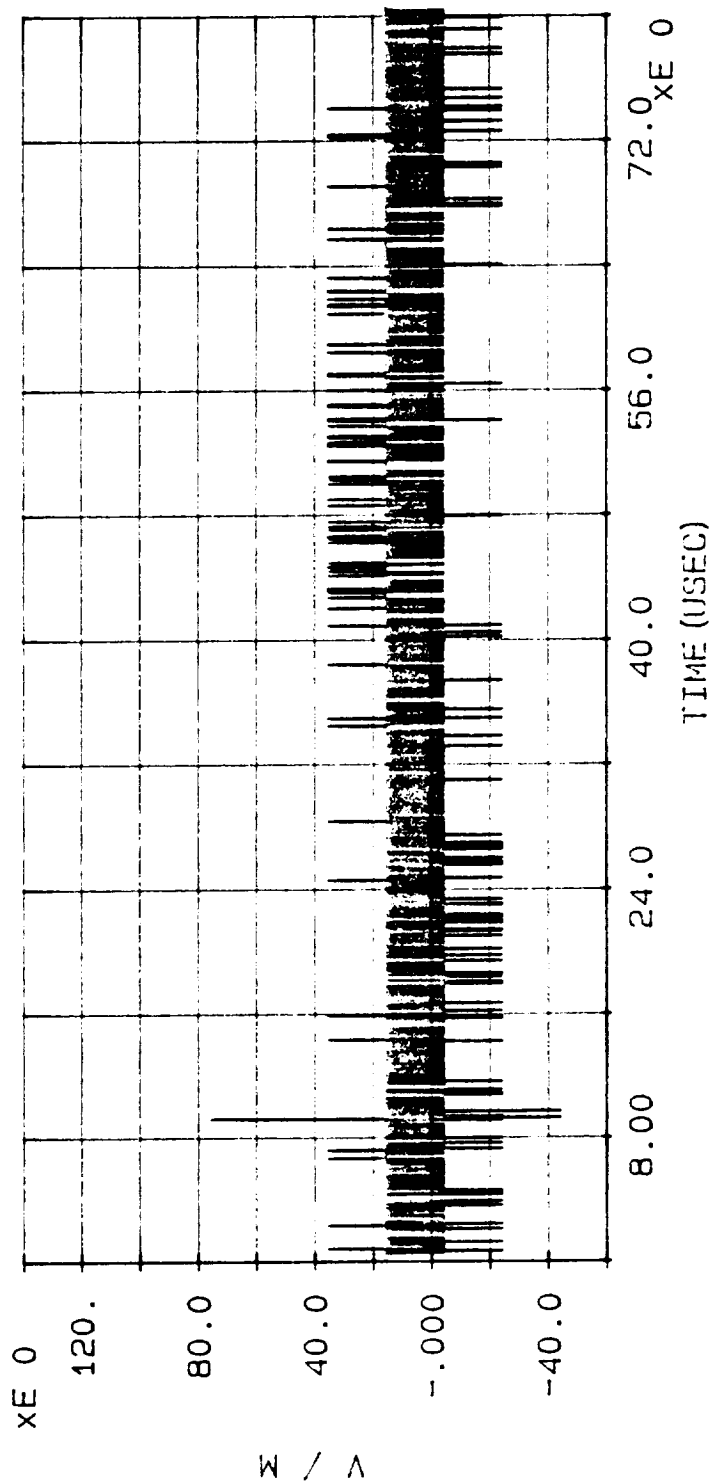
MARX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 10:13:19.64

FILE: C:\CAT\DATA6\ME423.TST

MAX E-field = 1.959E2



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #60), PLOT #62,
ATTACH POINT #4, DISCHARGE #23

MARX MEASUREMENT: INPUT CURRENT

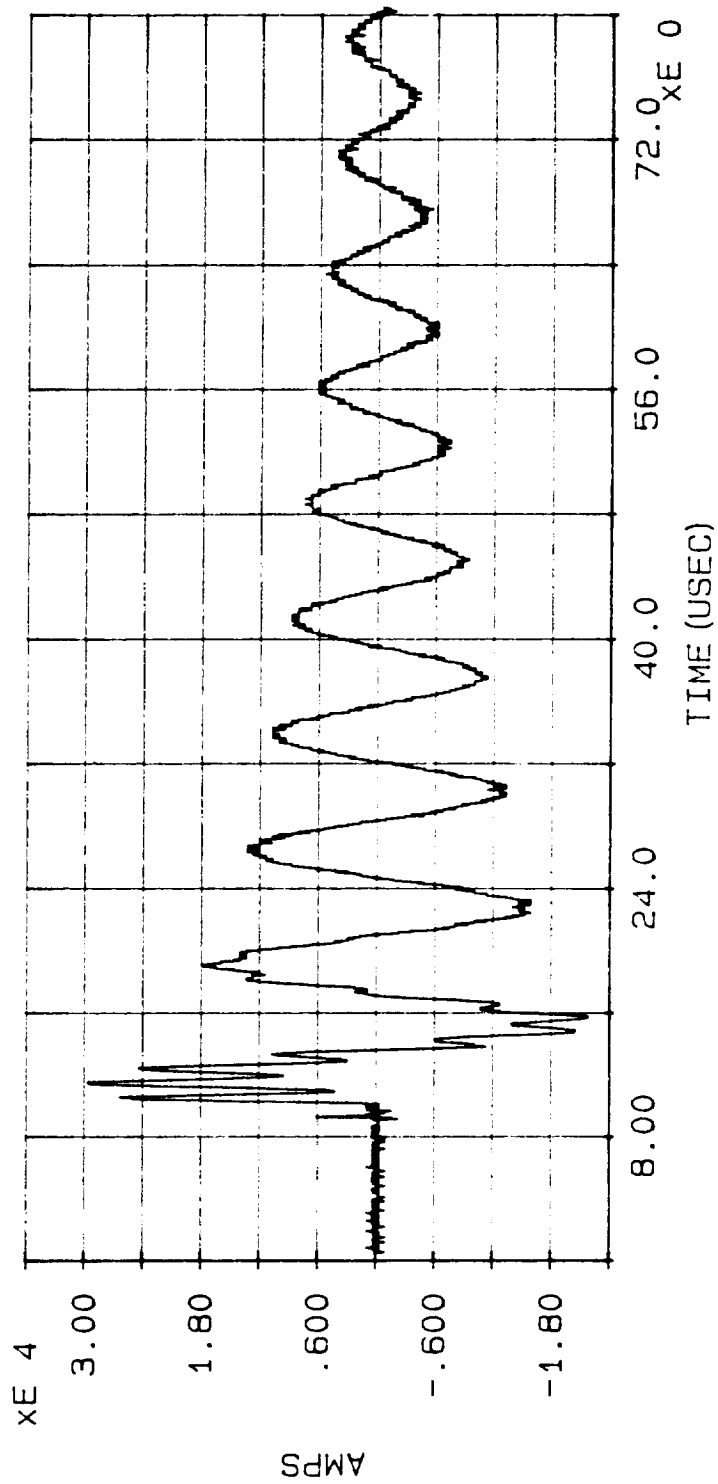
DATE: 06/26/90

TIME: 18:10:35.76

FILE: C:\CAT\DATA6\MI424.TST

MAX CURRENT = 3.028E4

ACTION INTEGRAL = 4.324E3



INJECTION CURRENT WAVEFORM, PLOT #63, ATTACH POINT #4, DISCHARGE #24, CONFIGURATION #1

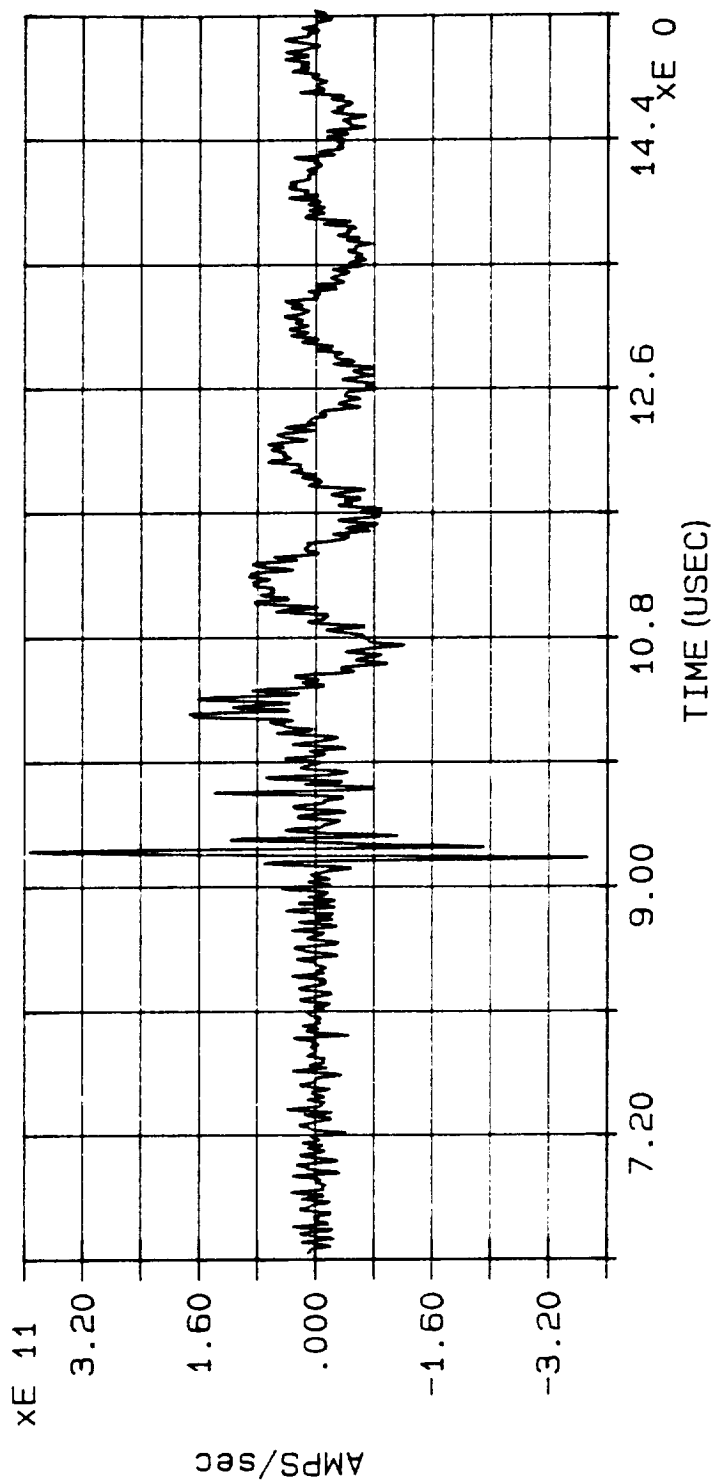
MARX di/dt

DATE: 06/26/90

TIME: 15:31:23.17

FILE: C:\CAT\DATA6\MI424.TST

MAX di/dt = 3.929E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #64, ATTACH POINT #4, DISCHARGE #24, CONFIGURATION #1

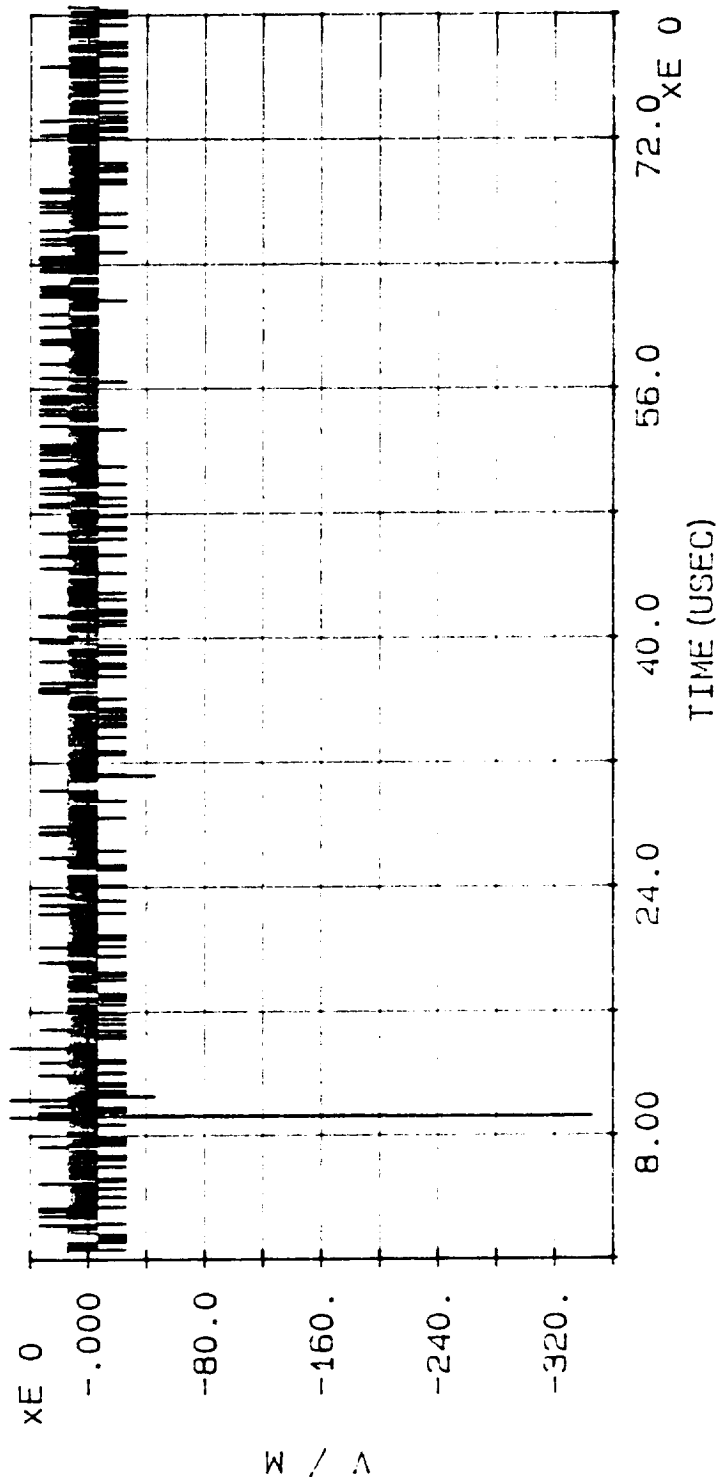
MARX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 10: 17: 36.85

FILE: C:\CAT\DATA6\ME424.TST

MAX E-field = -3.459E2



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #63), PLOT #65,
ATTACH POINT #4, DISCHARGE #24

MARX MEASUREMENT: INPUT CURRENT

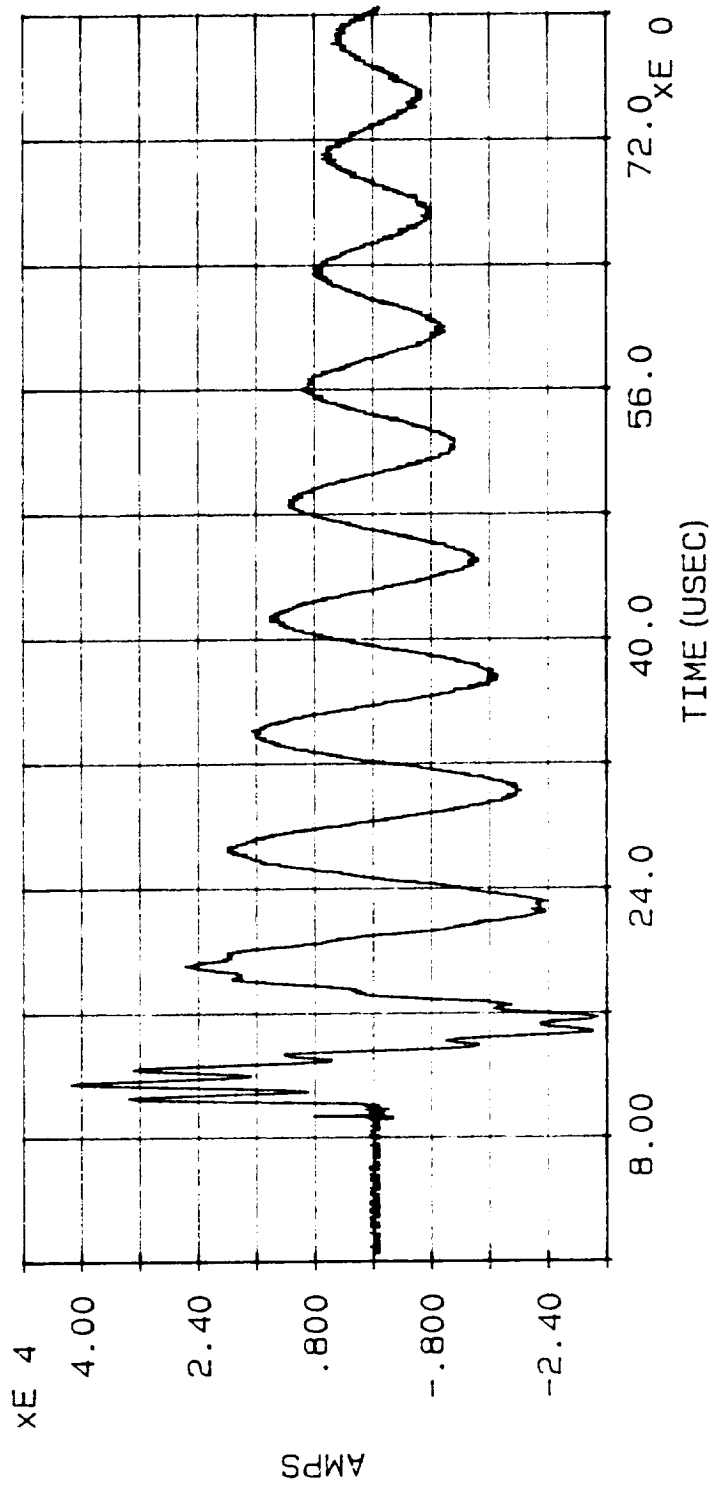
DATE: 06/26/90

TIME: 18:15:29.06

FILE: C:\CAT\DATA6\MI425.TST

MAX CURRENT = 4.214E4

ACTION INTEGRAL = 9.588E3



INJECTION CURRENT WAVEFORM, PLOT #66, ATTACH POINT #4, DISCHARGE #25, CONFIGURATION #1

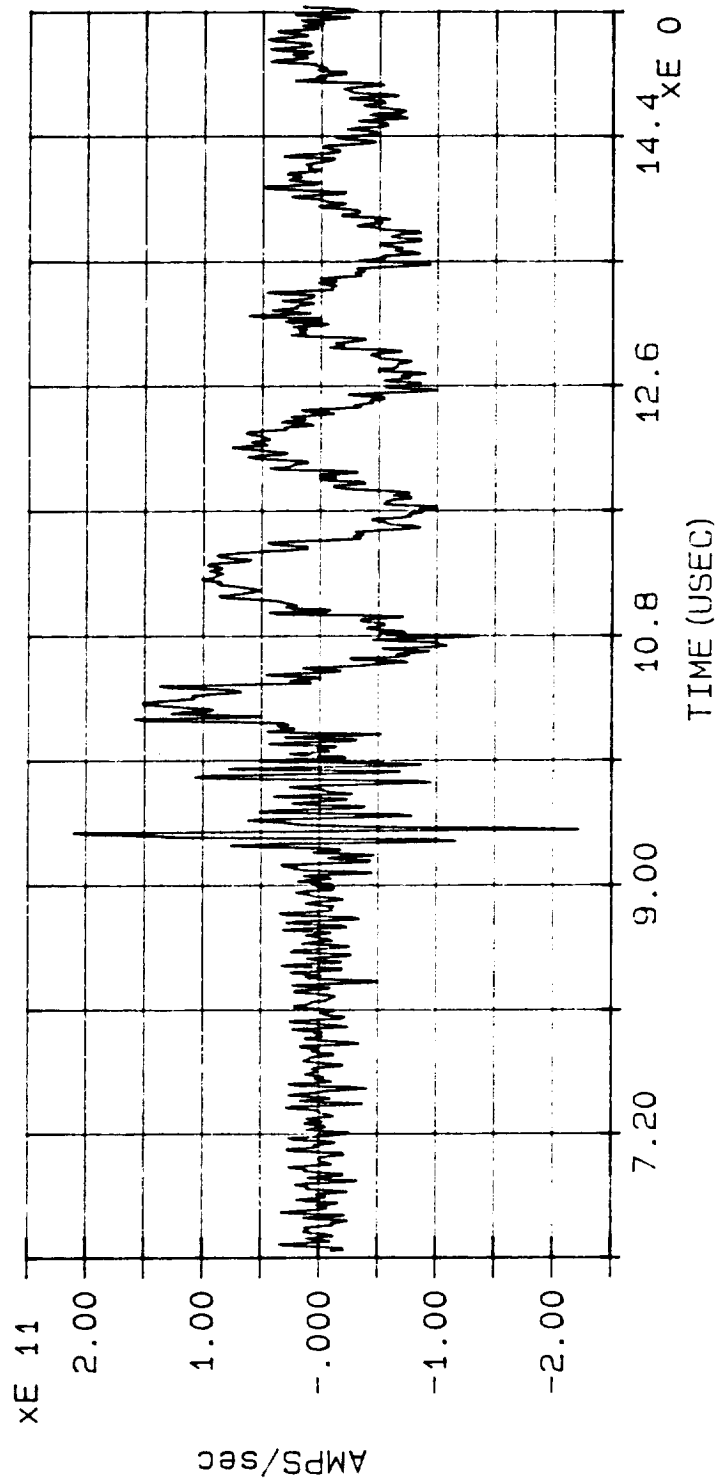
MARX di/dt

DATE: 06/26/90

TIME: 17:37:02.30

FILE: C:\CAT\DATA6\MI425.TST

MAX di/dt = -2.222E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #67, ATTACH POINT #4, DISCHARGE #25, CONFIGURATION #1

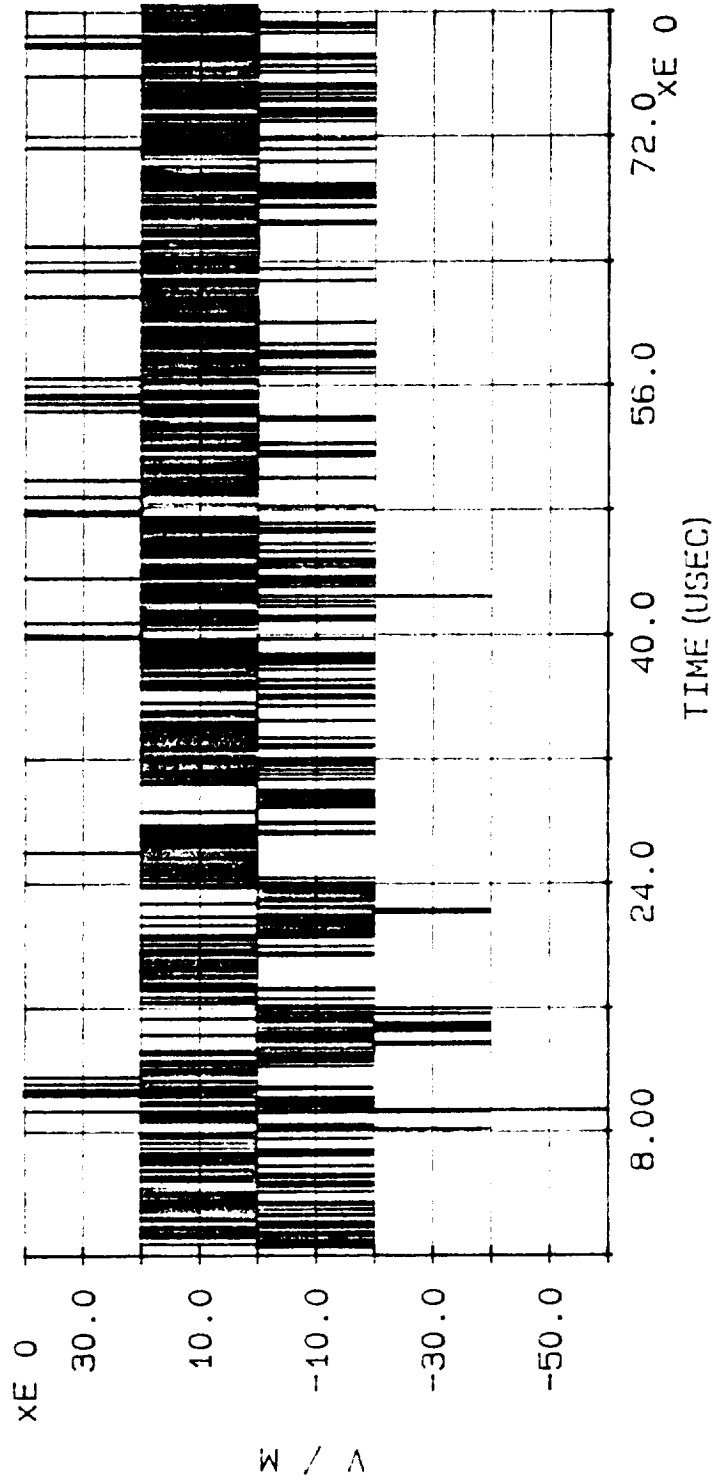
MARX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 10:21:30.18

FILE: C:\CAT\DATA6\ME425.TST

MAX E-field = $-1.996\text{E}2$



RADIAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #66), PLOT #68,
ATTACH POINT #4, DISCHARGE #25

MARX MEASUREMENT: INPUT CURRENT

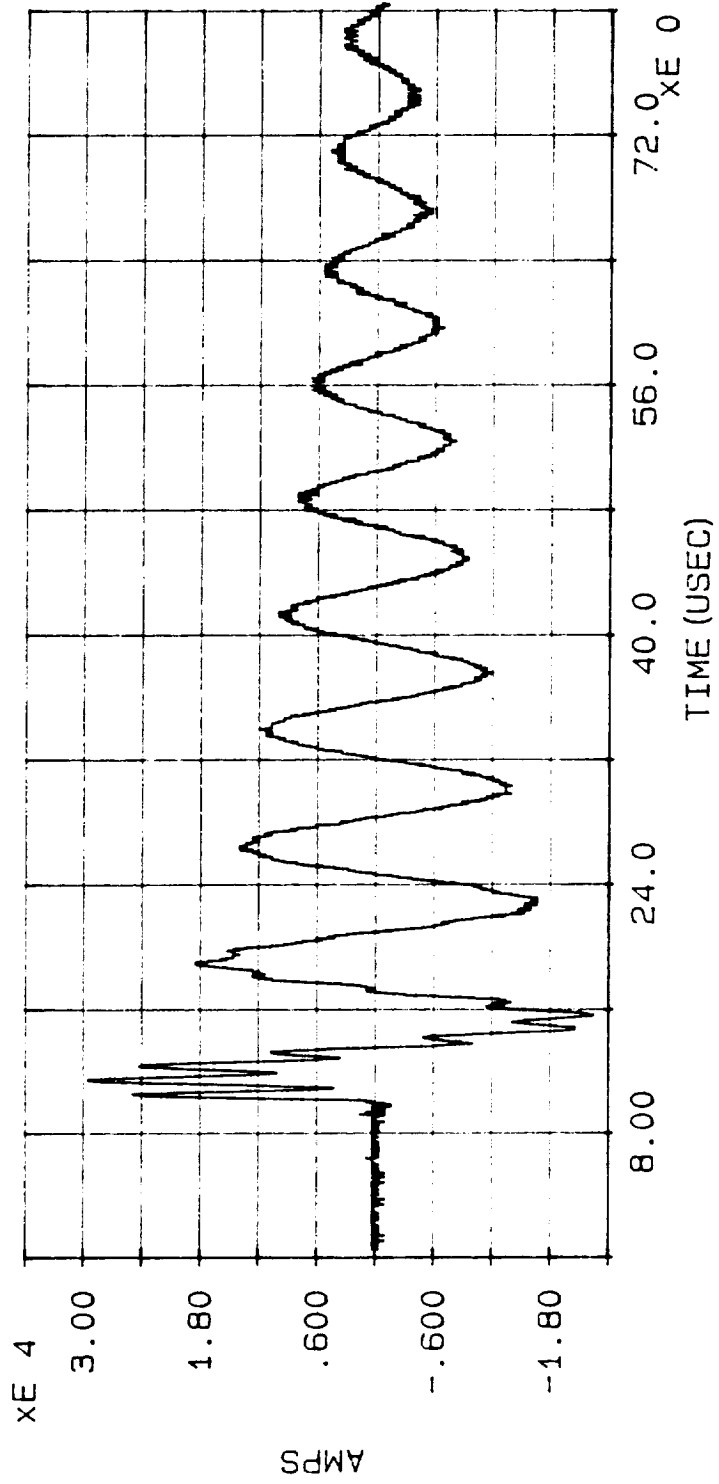
DATE: 06/26/90

TIME: 18:19:56.11

FILE: C:\CAT\DATA6\MI426.TST

MAX CURRENT = 3.022E4

ACTION INTEGRAL = 4.611E3



INJECTION CURRENT WAVEFORM, PLOT #68, ATTACH POINT #4, DISCHARGE #26, CONFIGURATION #1

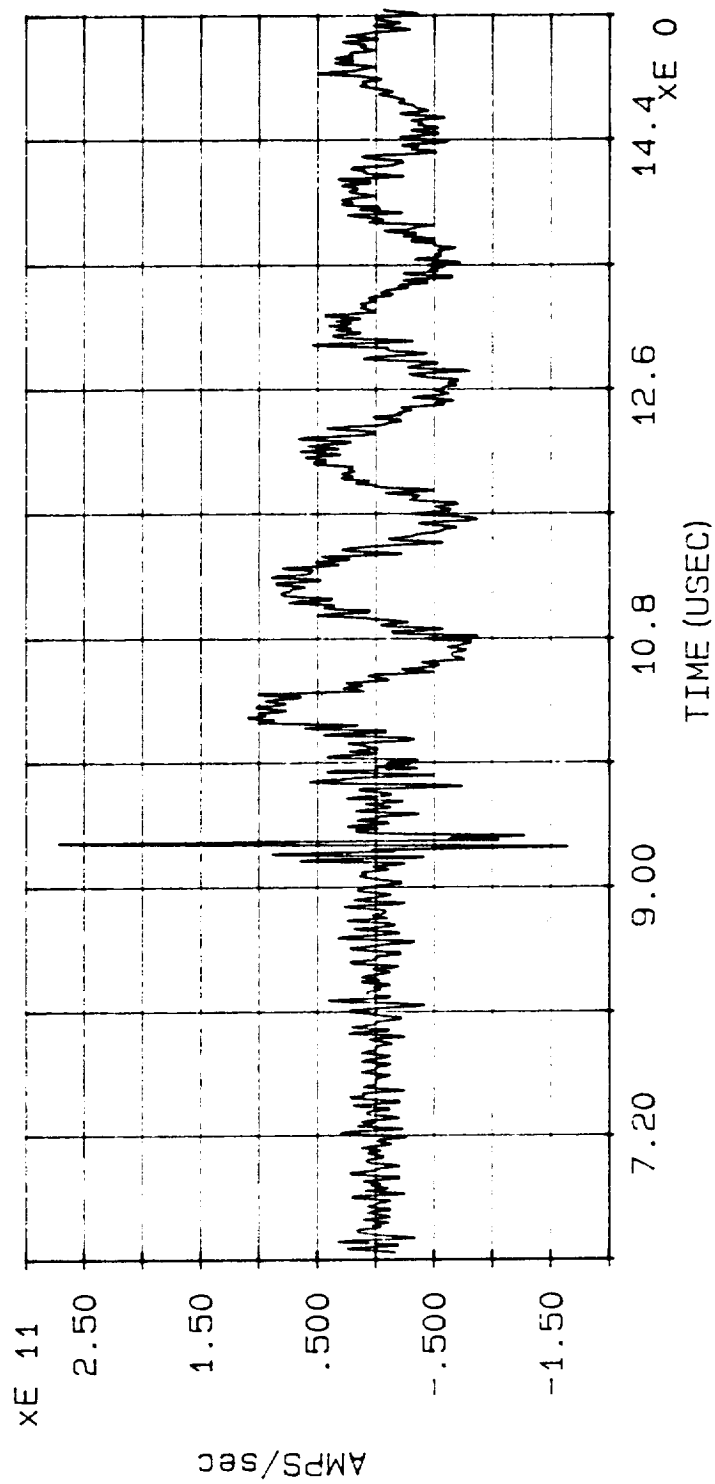
MARX di/dt

DATE: 06/26/90

TIME: 17:40:41.34

FILE: C:\CAT\DATA6\MI426.TST

MAX di/dt = 2.726E11



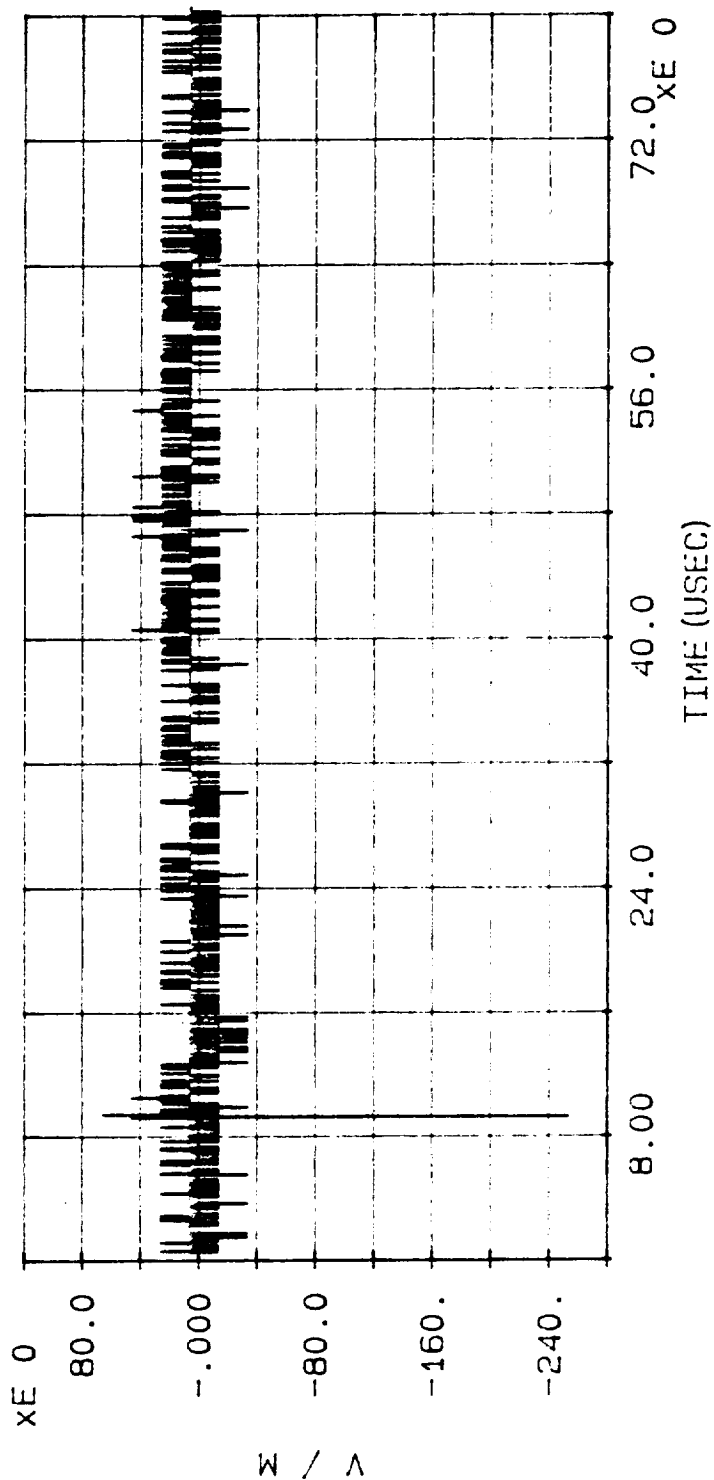
MARX MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 10:26:04.53

FILE: C:\CAT\DATA6\ME426.TST

MAX E-field = -2.533E2



RADIAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #68), PLOT #70,
ATTACH POINT #4, DISCHARGE #26

COMPOSITE CURRENT BANK: HIGH CURRENT

DATE: 06/27/90

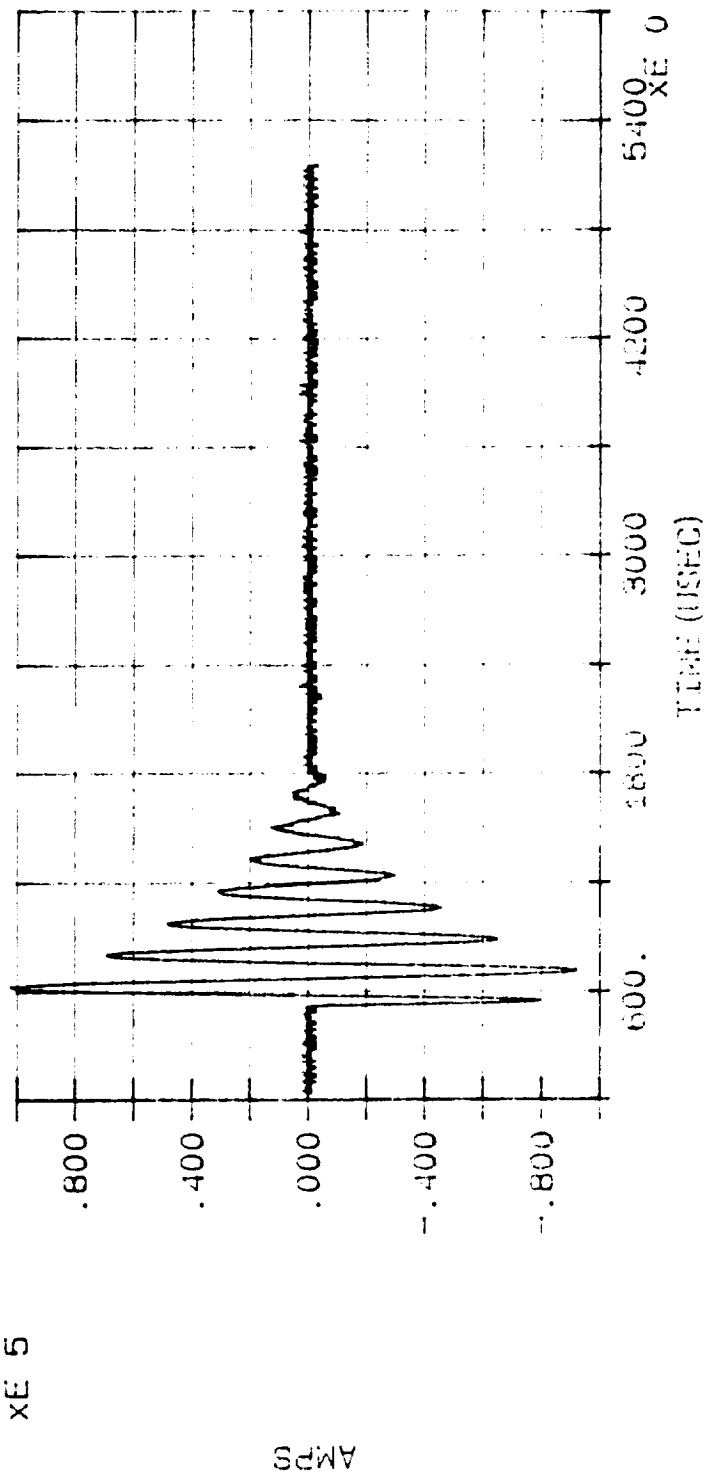
TIME: 12:08:04.49

datap FILE: C:\HCI\H_CHAN1.027

MAX CURRENT = 1.027E5

ACTION INTEGRAL = 1.778E6

XE 5



INJECTION CURRENT WAVEFORM, PLOT #71, ATTACH POINT #5, DISCHARGE #27, CONFIGURATION #1

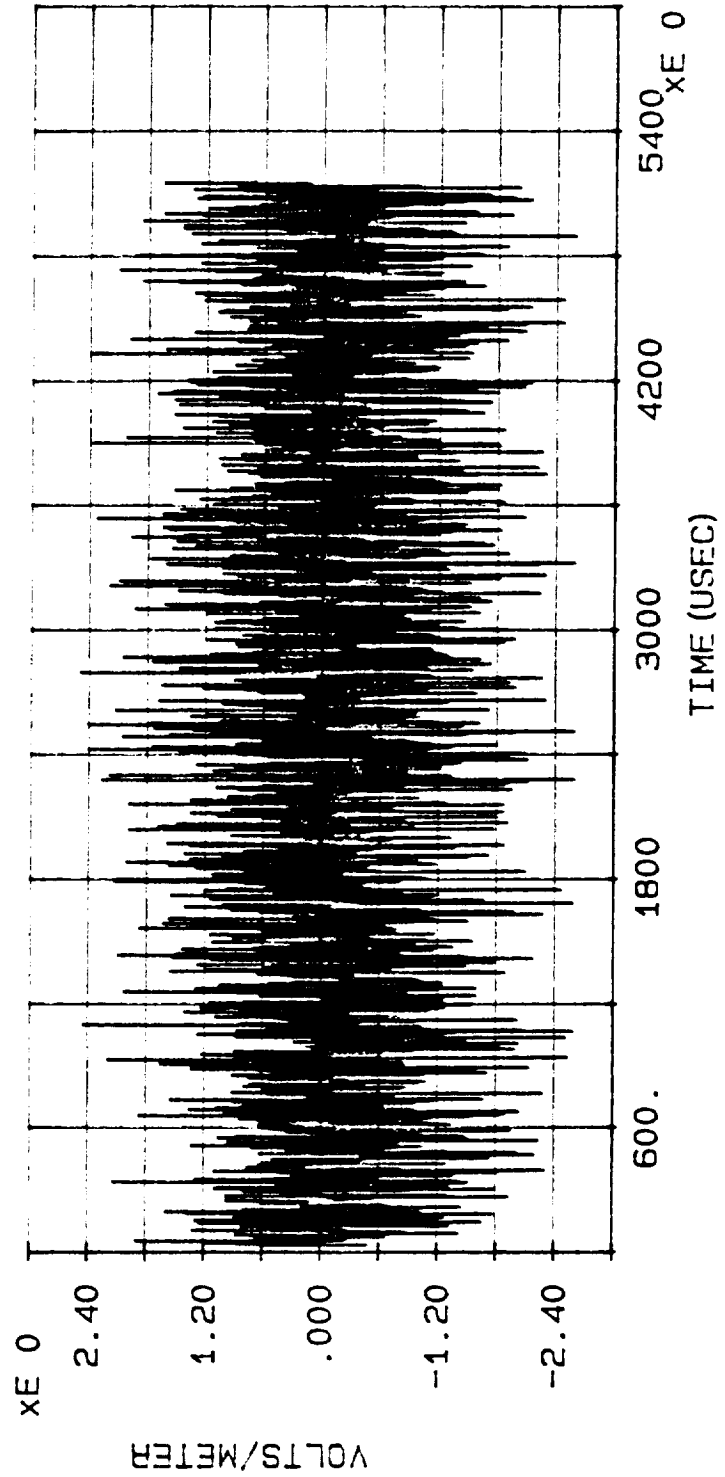
HIGH CURRENT BANK MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 12:08:04.49

FILE: C:\HCI\H_CHAN3.027

MAX E-field = -2.602E0



RADIAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #71), PLOT #72,
ATTACH POINT #5, DISCHARGE #27

COMPOSITE CURRENT BANK: HIGH CURRENT

DATE: 06/27/90

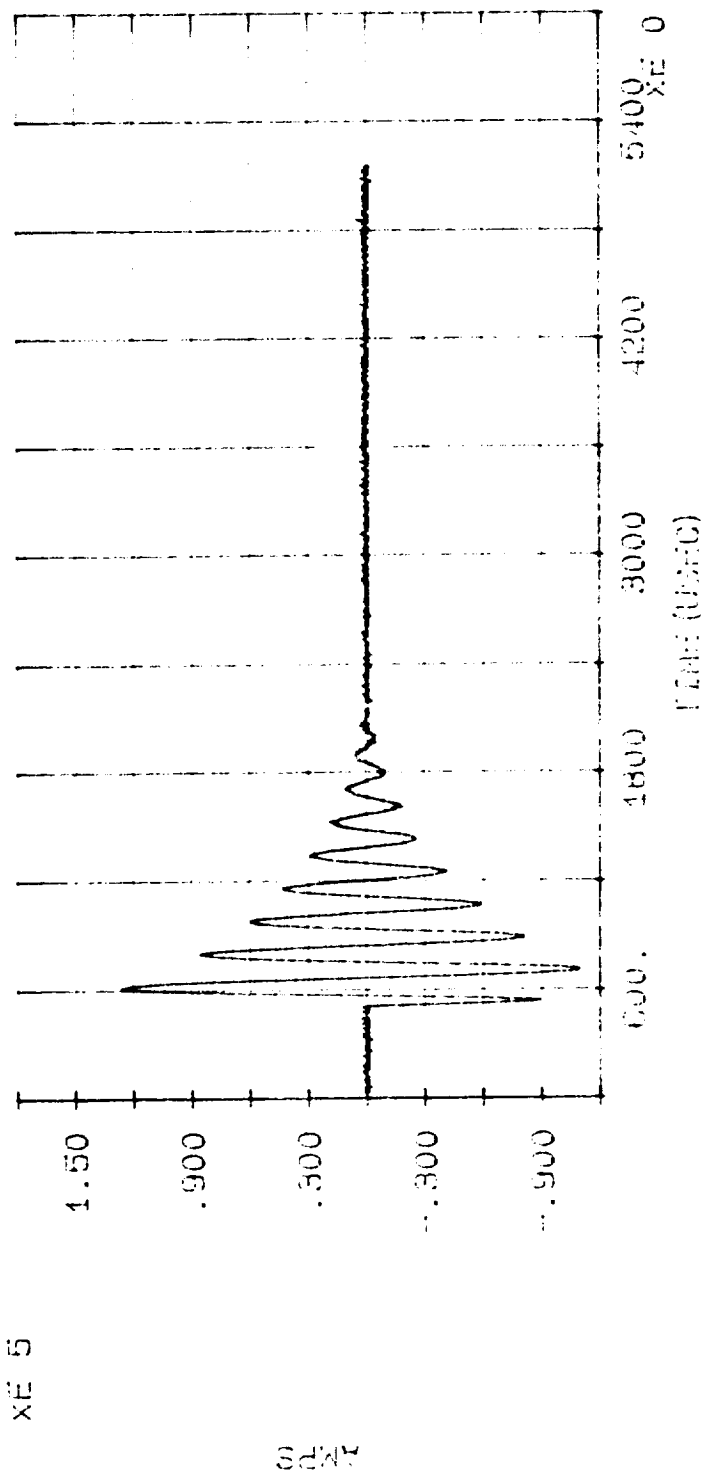
TIME: 13:52:27.43

datap FILE: C:\HCI\H_CHAN1.028

MAX CURRENT = 1.282E5

ACTION INTEGRAL = 2.826E6

XE 5



INJECTION CURRENT WAVEFORM, PLOT #73, ATTACH POINT #5, DISCHARGE #28, CONFIGURATION #1

ORIGINAL PAGE IS
OF POOR QUALITY

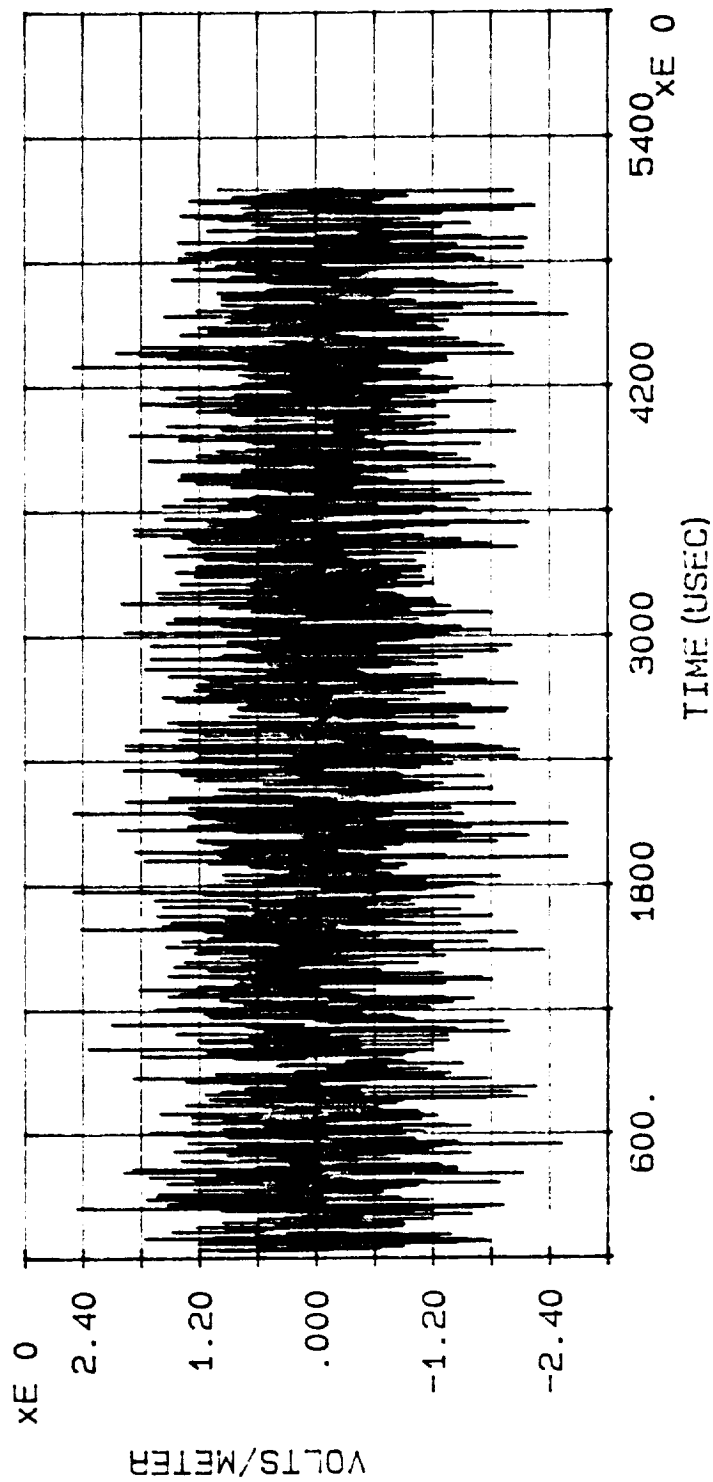
HIGH CURRENT BANK MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 13:52:27.43

FILE: C:\HCI\H_CHAN3.028

MAX E-field = -2.590E0



RADIAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #73), PLOT #74,
ATTACH POINT #5, DISCHARGE #28

COMPOSITE CURRENT BANK: HIGH CURRENT

DATE: 06/27/90

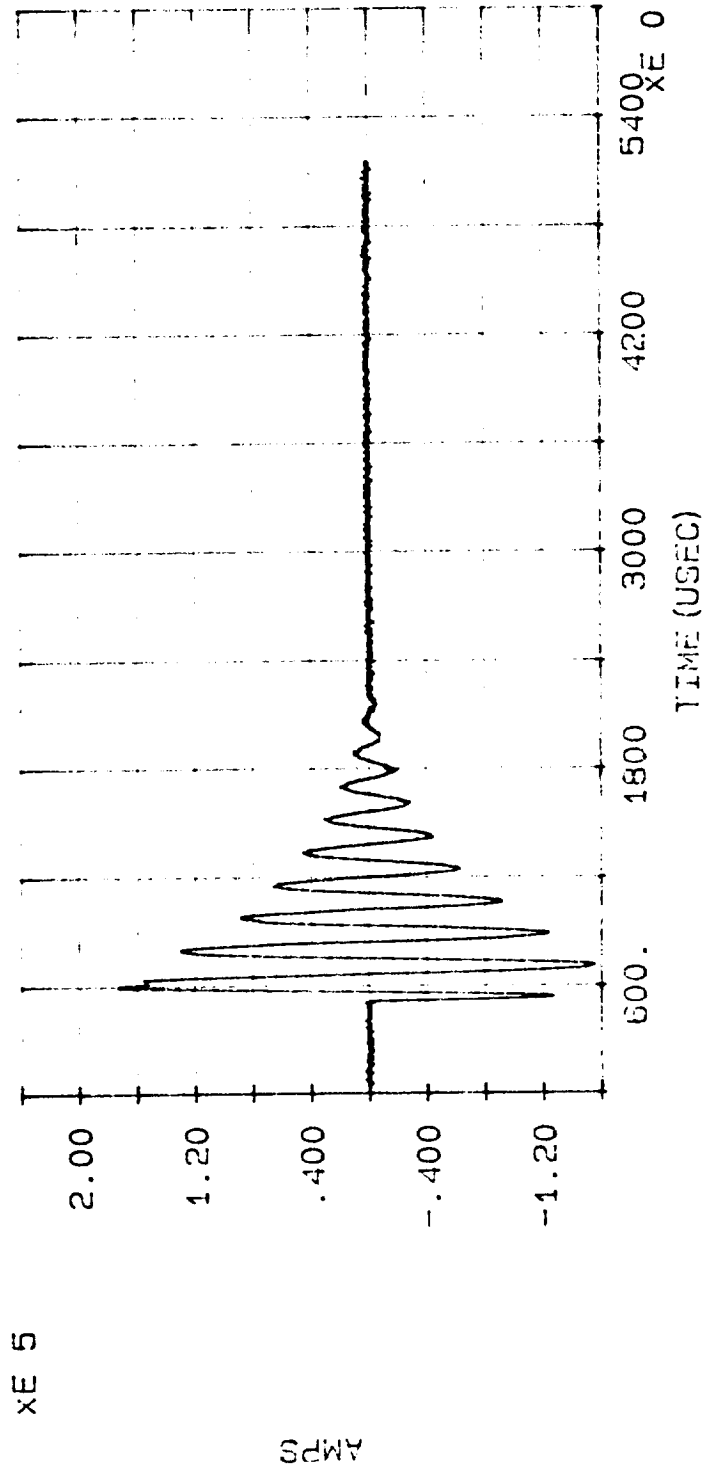
TIME: 16:31:21.78

datap FILE: C:\HCI\H_CHAN1.029

MAX CURRENT = 1.764E5

ACTION INTEGRAL = 6.276E6

x E 5



INJECTION CURRENT WAVEFORM, PLOT #75, ATTACH POINT #5, DISCHARGE #29, CONFIGURATION #1

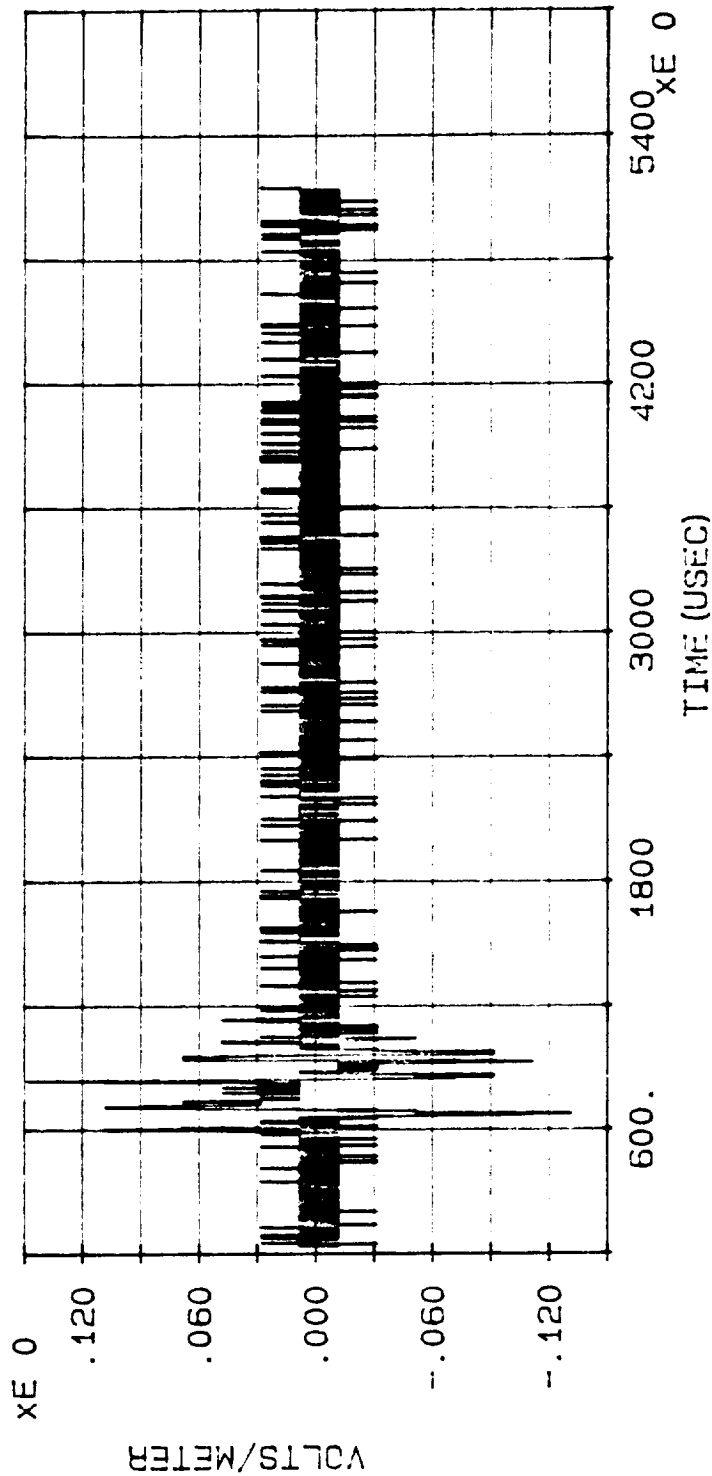
HIGH CURRENT BANK MEASUREMENT: Electric Field

DATE: 06/27/90

TIME: 16:31:21.78

FILE: C:\HCI\H_CHAN3.029

MAX E-field = 1.485E-1



RADIAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #75), PLOT #76,
ATTACH POINT #5, DISCHARGE #29

COMPOSITE CURRENT BANK: HIGH CURRENT

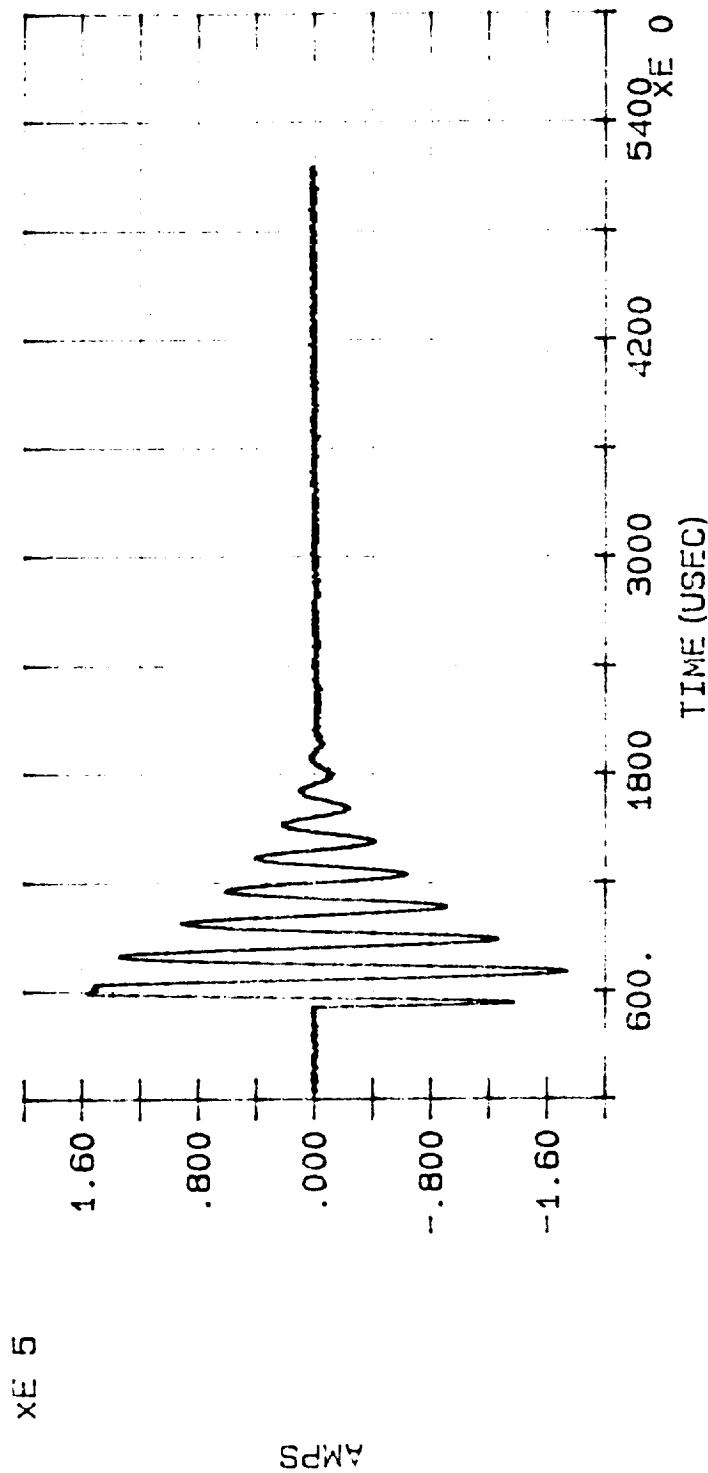
DATE: 06/28/90

TIME: 10:36:29.14

datap FILE: C:\HCI\H_CHAN1.030

MAX CURRENT = $-1.741E5$

ACTION INTEGRAL = $6.440E6$



INJECTION CURRENT WAVEFORM, PLOT #77, ATTACH POINT #3, DISCHARGE #30, CONFIGURATION #1

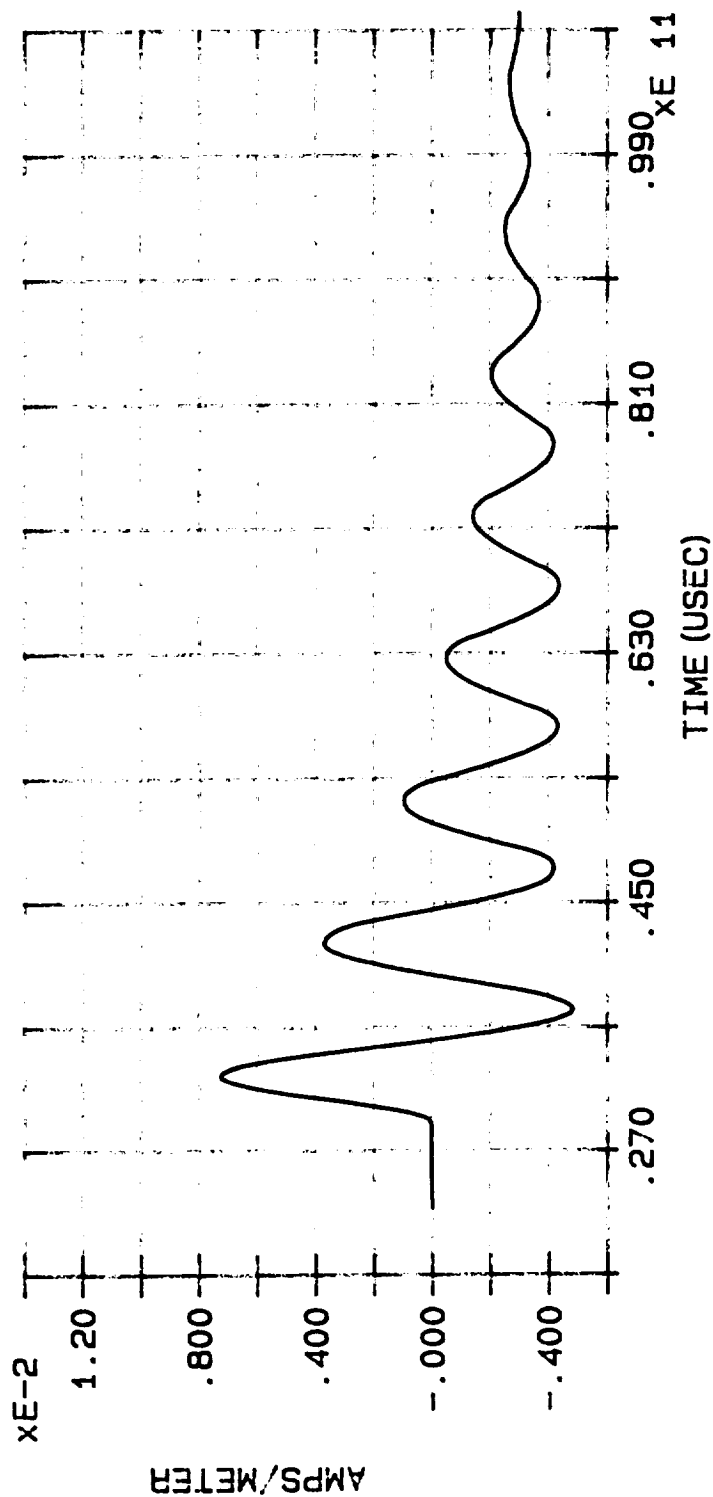
HCB Measurement: Magnetic Field

DATE: 08/14/90

TIME: 13:20:51.34

FILE: C:\HCI\H_CHAN2.030

MAX H = 7.262E-3



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #77), PLOT #78,
ATTACH POINT #3, DISCHARGE #30

MARX MEASUREMENT: INPUT CURRENT

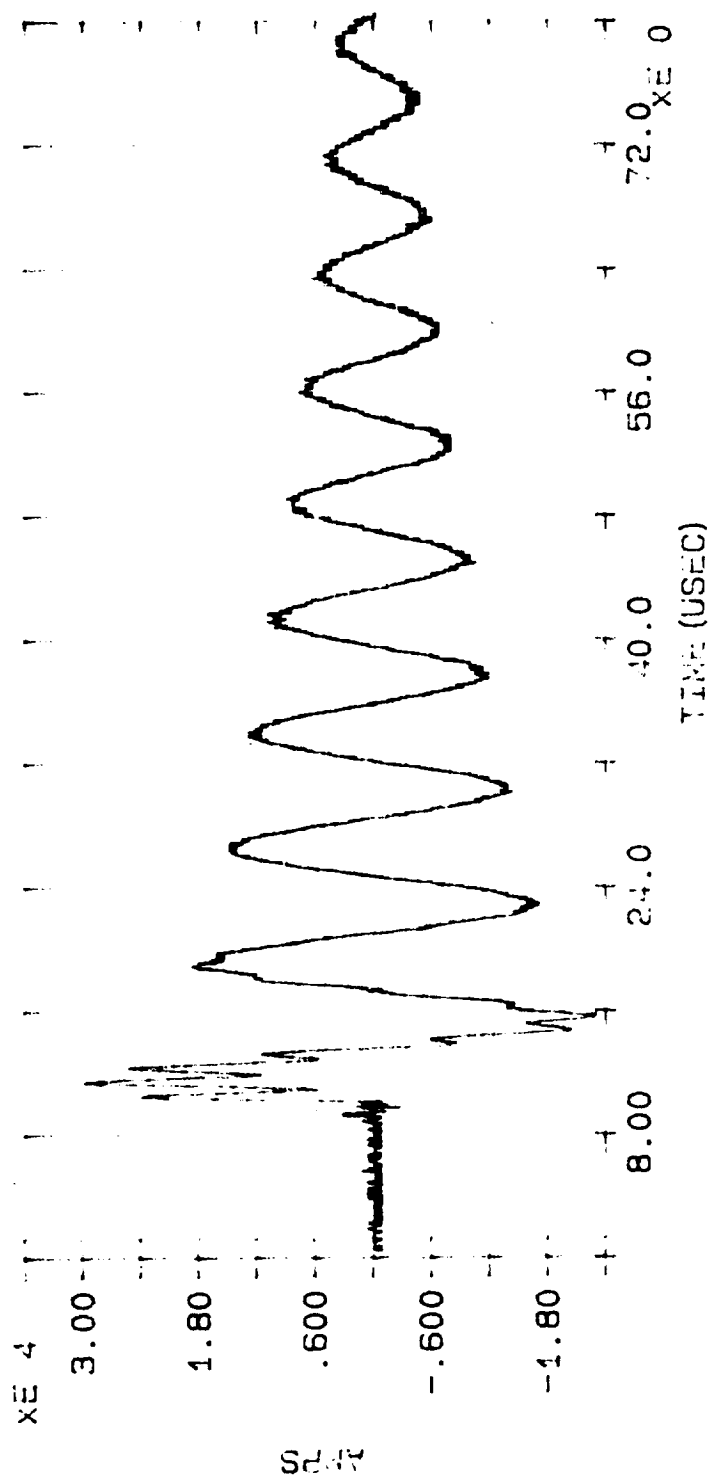
DATE: 07/02/90

TIME: 19:36:56.11

FILE: C:\CAT\DATA6\MI531.TST

MAX CURRENT = 3.040E4

ACTION INTEGRAL = 5.059E3



INJECTION CURRENT WAVEFORM, PLOT #80, ATTACH POINT #5, DISCHARGE #31, CONFIGURATION #2

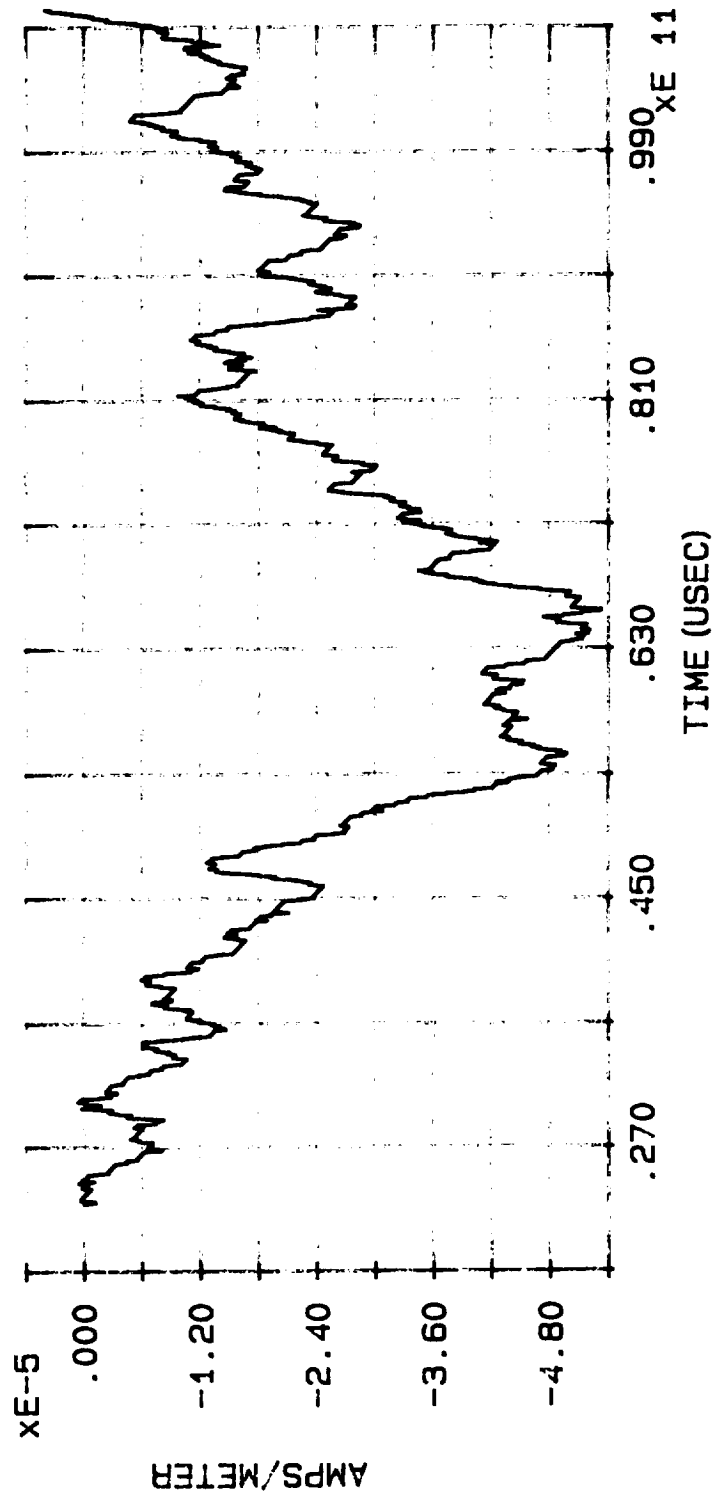
HCB Measurement: Magnetic Field

DATE: 08/14/90

TIME: 13:28:38.48

FILE: C:\HCI\H_CHAN3.030

MAX H = -5.327E-5



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #77), PLOT #79,
ATTACH POINT #3, DISCHARGE #30

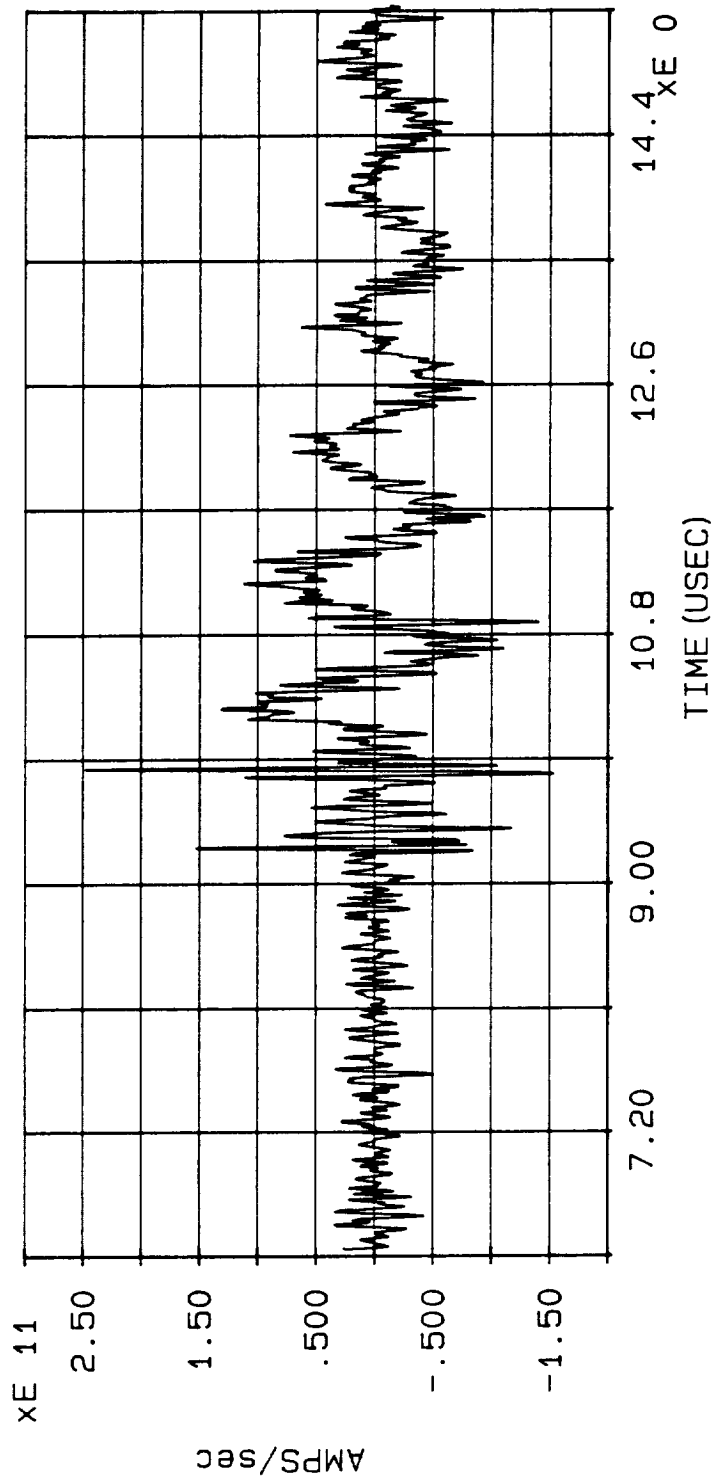
MARX di/dt

DATE: 07/02/90

TIME: 19: 45: 47.62

FILE: C:\CAT\DATA6\MI531.TST

MAX di/dt = 2.482E11



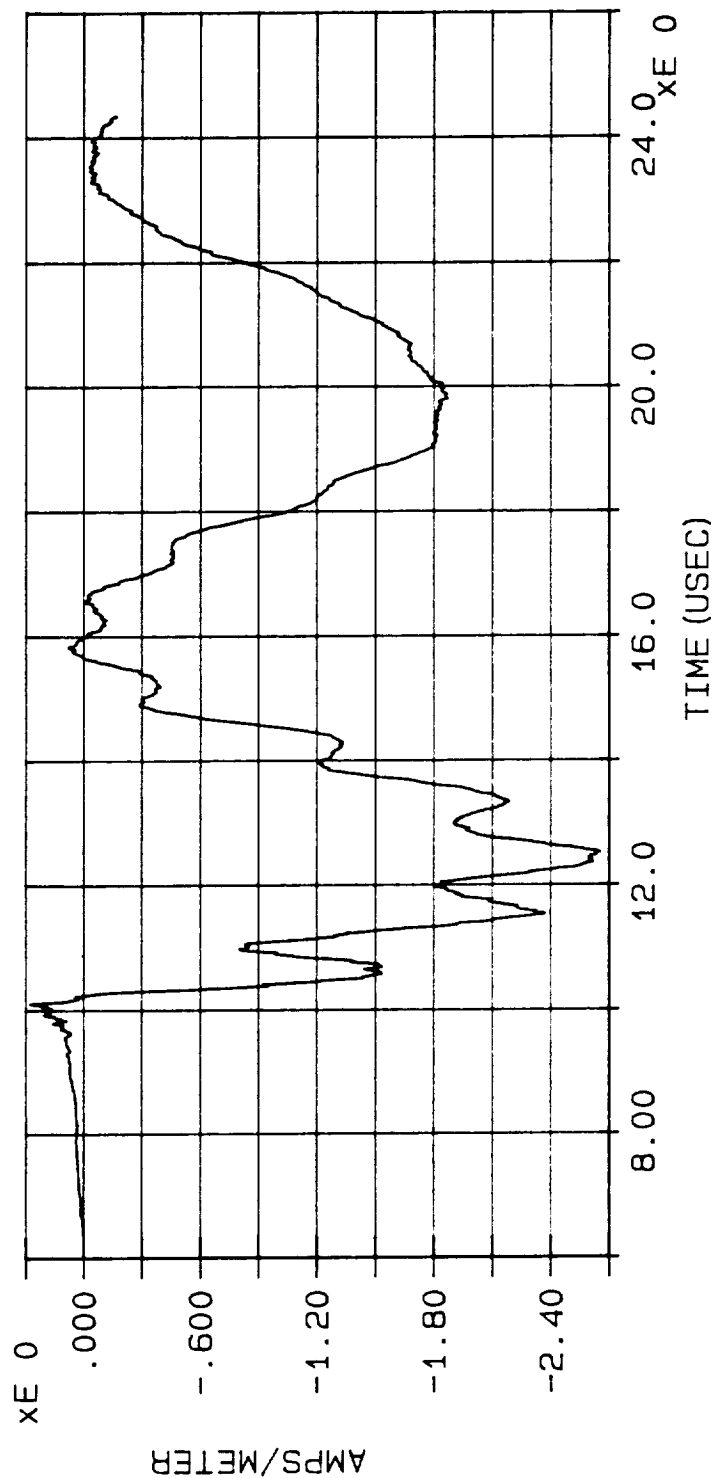
MARX Measurement: Magnetic Field

DATE: 07/02/90

TIME: C:\CAT\DATA6\MB531.TST

FILE: mb531

MAX H = -2.652E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #80), PLOT #82,
ATTACH POINT #5, DISCHARGE #31

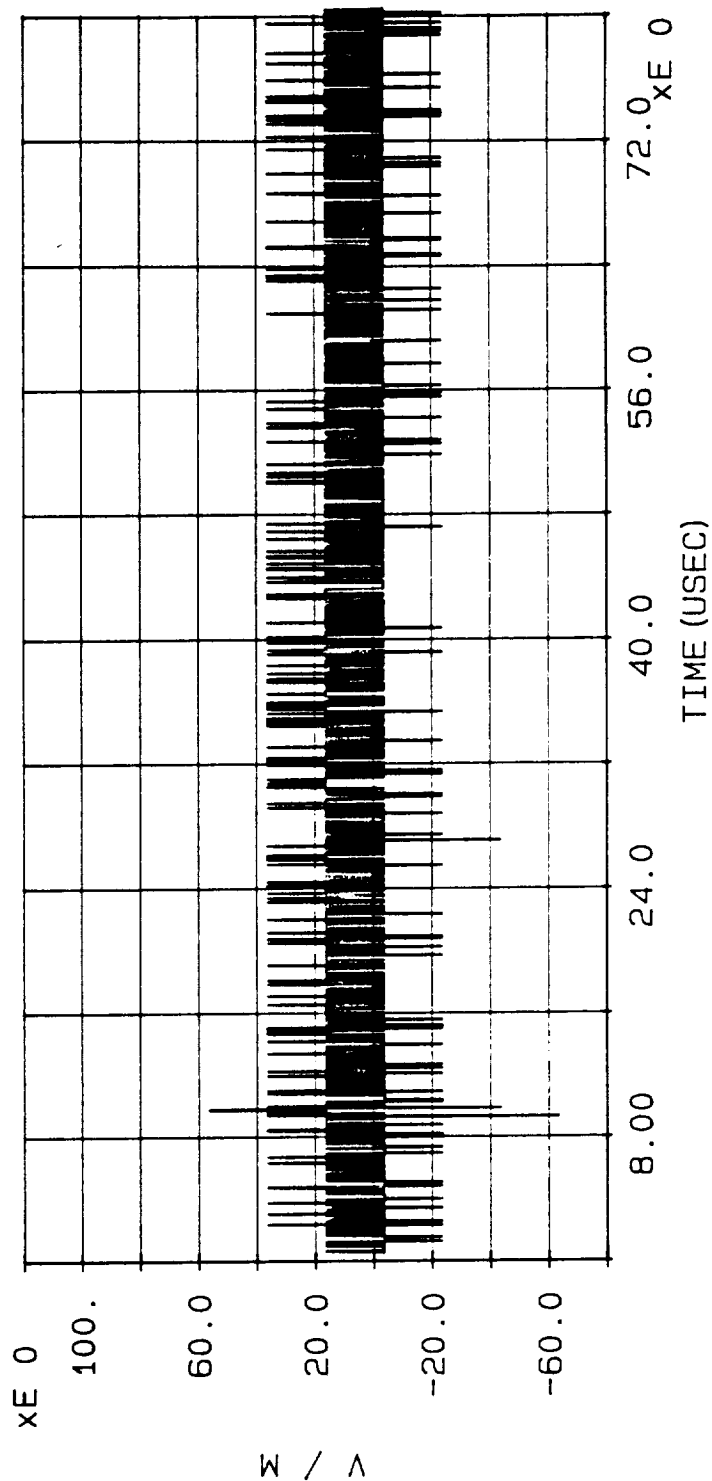
MARX MEASUREMENT: Electric Field

DATE: 07/02/90

TIME: 20:02:06.56

FILE: C:\CAT\DATA6\ME531.TST

MAX E-field = 7.653E1



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #80), PLOT #83,
ATTACH POINT #5, DISCHARGE #31

MARK MEASUREMENT: INPUT CURRENT

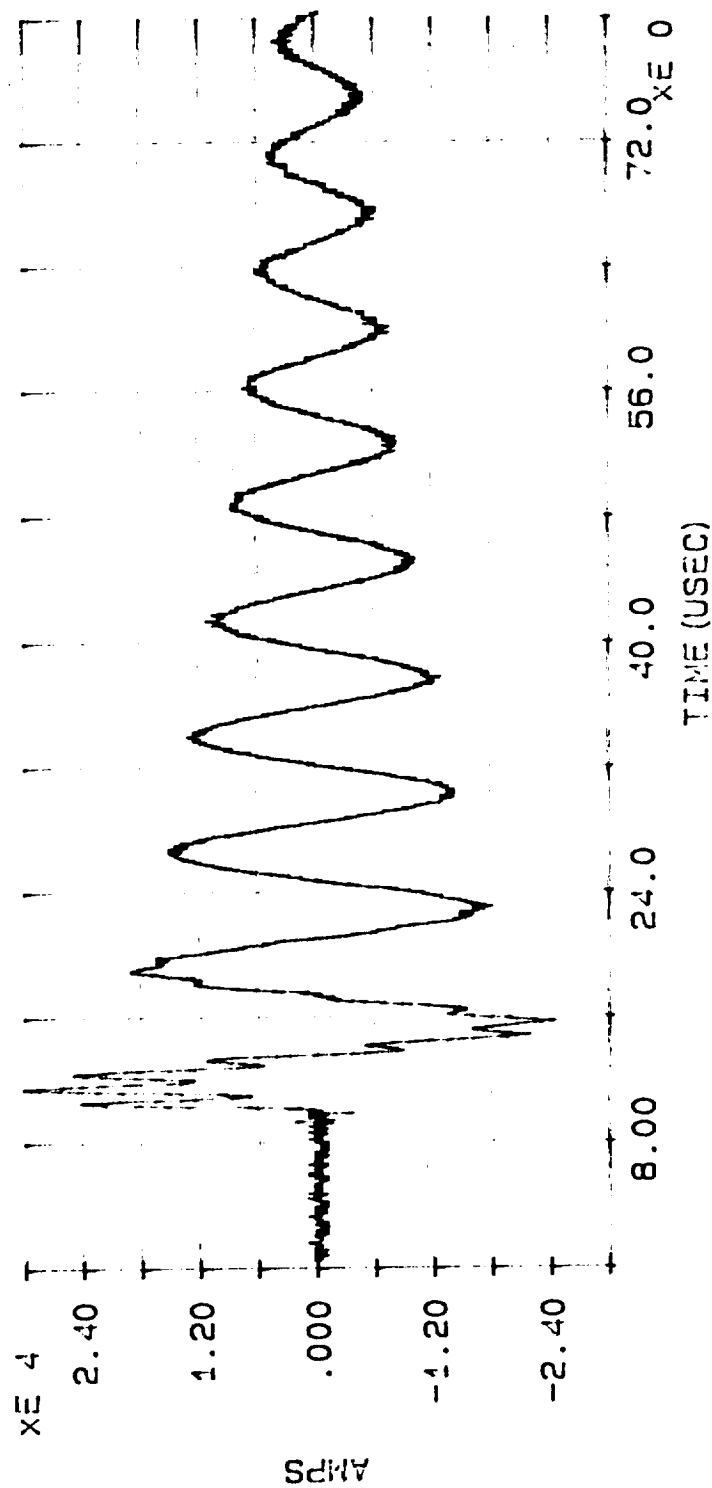
DATE: 07/02/90

TIME: 19:40:56.57

FILE: C:\CAT\DATA6\MIS32.TST

MAX CURRENT = 3.017E4

ACTION INTEGRAL = 5.087E3



INJECTION CURRENT WAVEFORM, PLOT #84, ATTACH POINT #5, DISCHARGE #32, CONFIGURATION #2

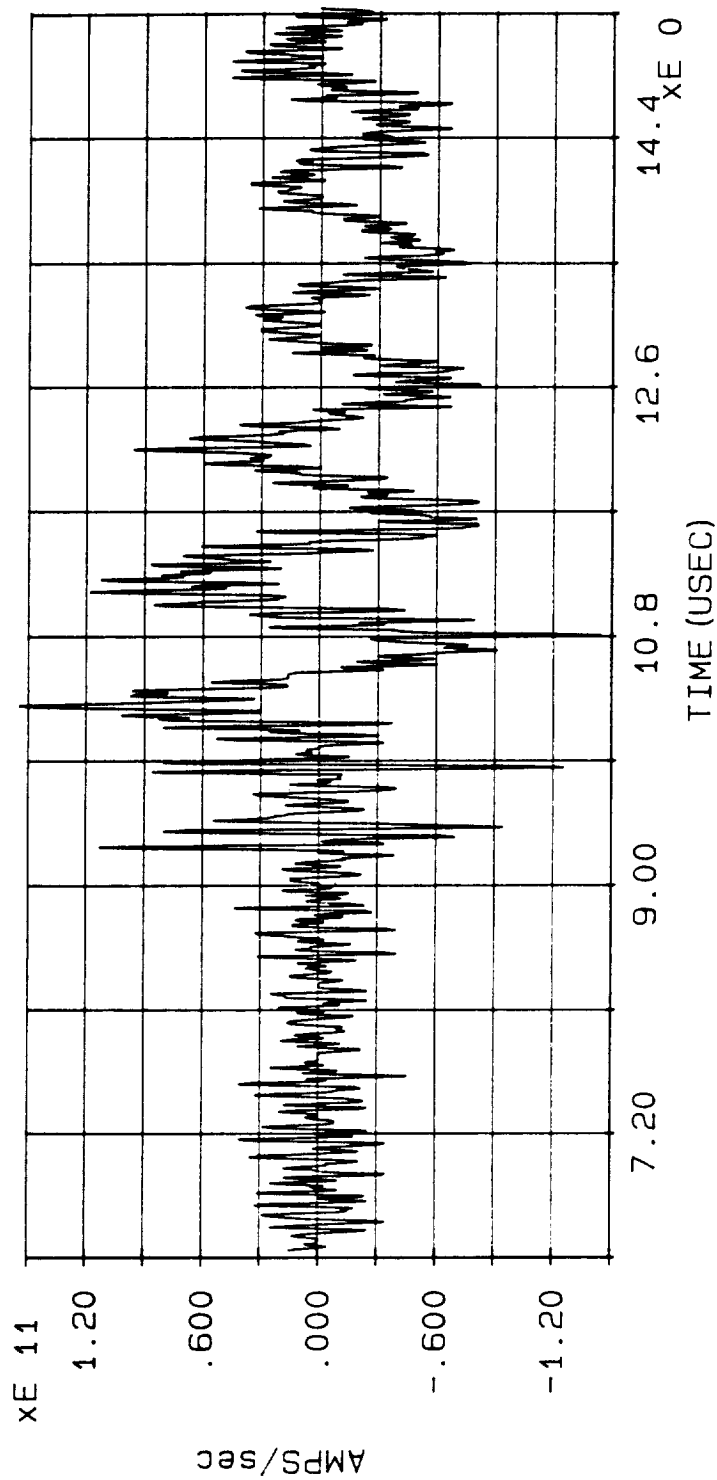
MARX di/dt

DATE: 07/02/90

TIME: 19: 48: 44.37

FILE: C:\CAT\DATA6\MI532.TST

MAX di/dt = 1.548E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #85, ATTACH POINT #5, DISCHARGE #32, CONFIGURATION #2

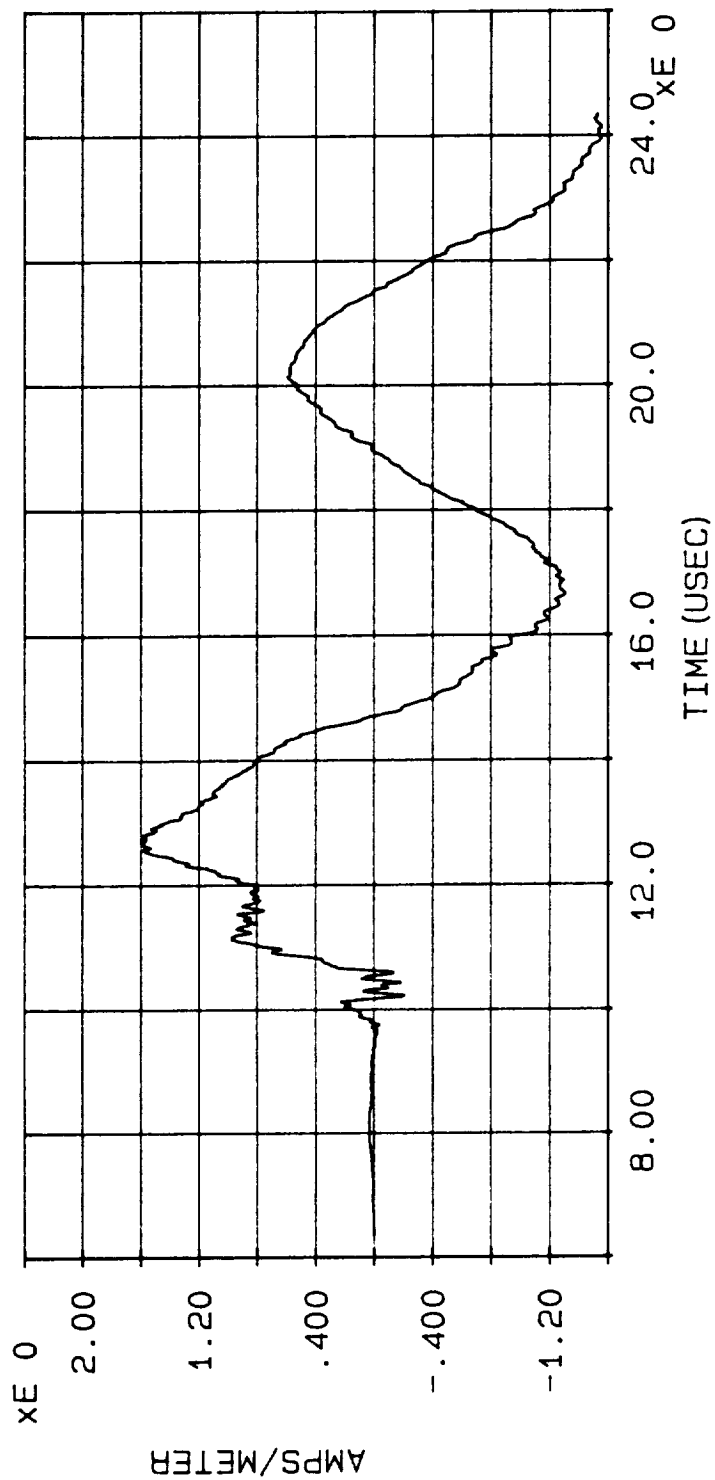
MARX Measurement: Magnetic Field

DATE: 07/02/90

TIME: 20:18:51.59

FILE: C:\CAT\DATA6\MB532.TST

MAX H = 1.593E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #84), PLOT #86,
ATTACH POINT #5, DISCHARGE #32

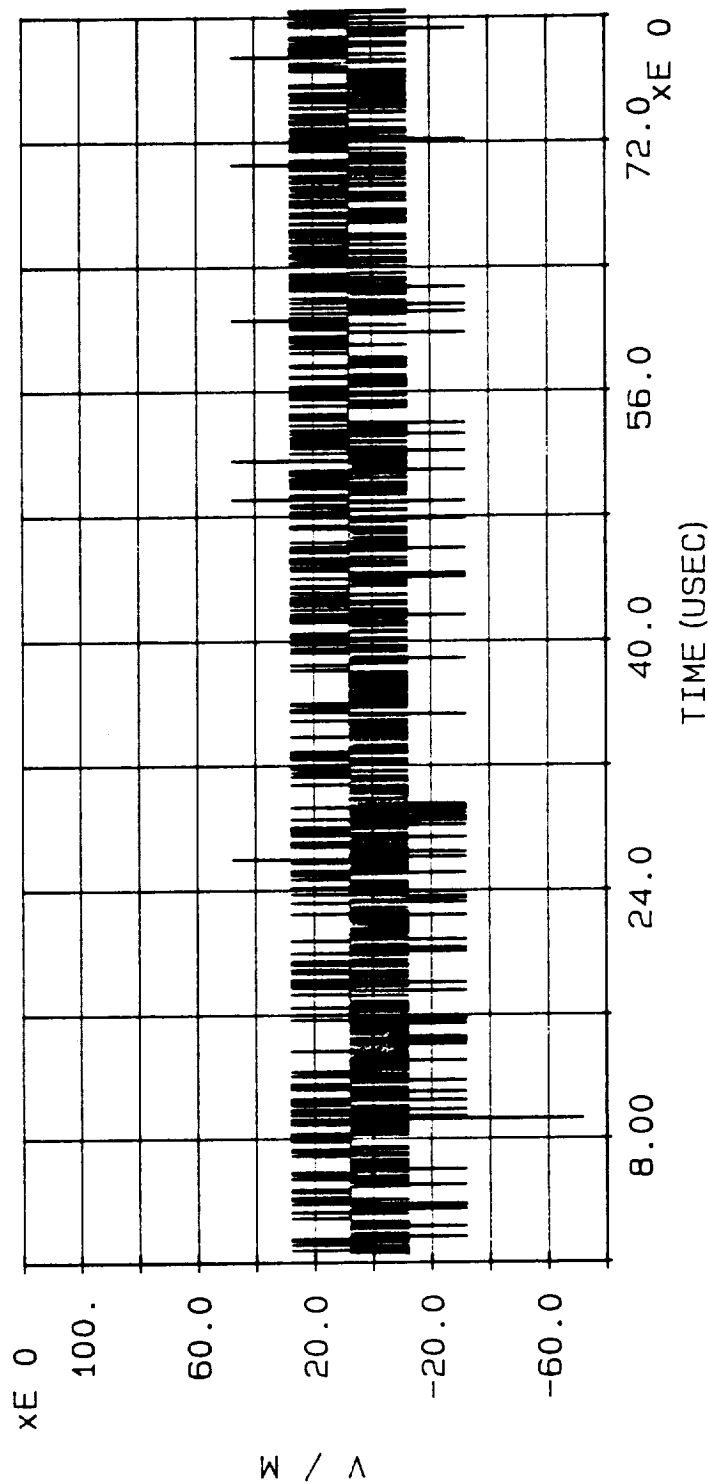
MARX MEASUREMENT: Electric Field

DATE: 07/02/90

TIME: 20:06:14.99

FILE: C:\CAT\DATA6\ME532.TST

MAX E-field = -2.119E2



RADIAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #84), PLOT #87,
ATTACH POINT #5, DISCHARGE #32

MARX MEASUREMENT: INPUT CURRENT

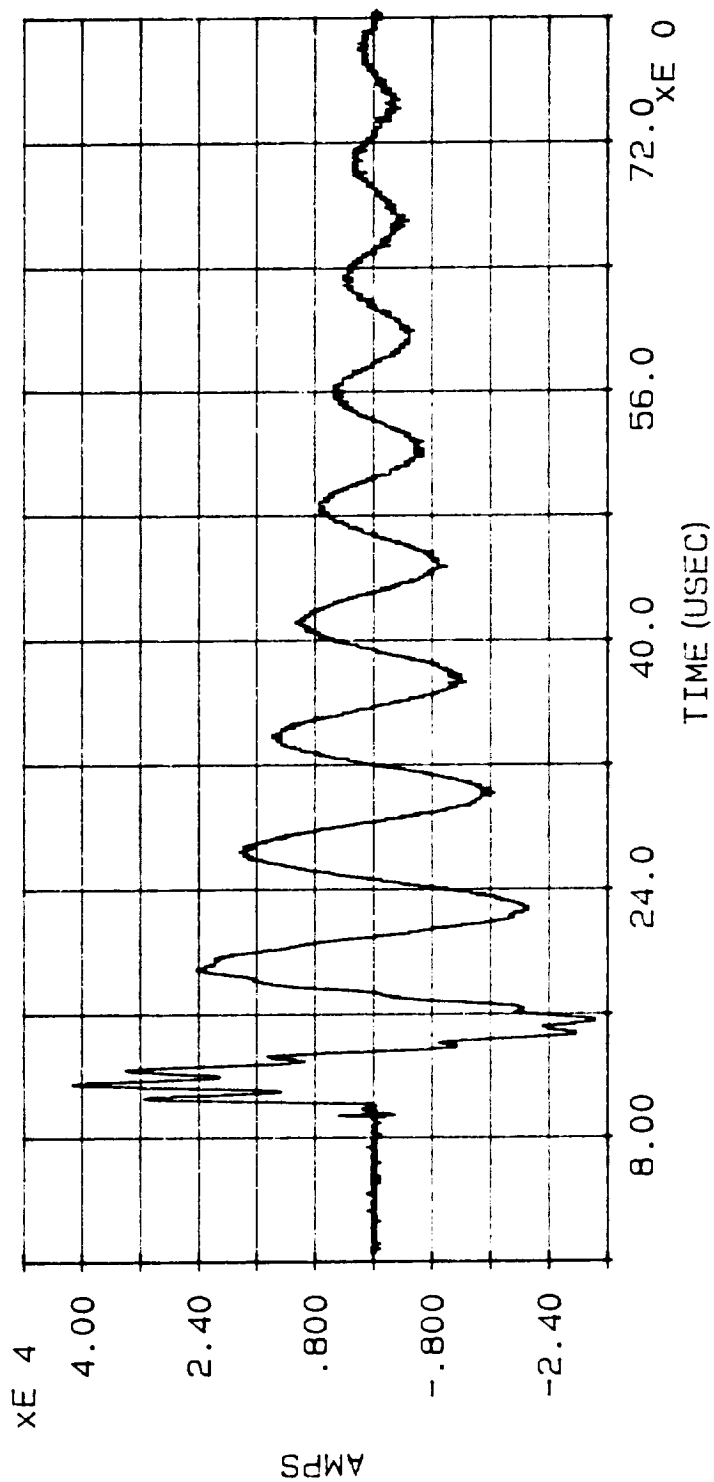
DATE: 07/03/90

TIME: 11:33:44.57

FILE: C:\CAT\DATA6\MI333.TST

MAX CURRENT = 4.262E4

ACTION INTEGRAL = 7.470E3



INJECTION CURRENT WAVEFORM, PLOT #88, ATTACH POINT #3, DISCHARGE #33, CONFIGURATION #2

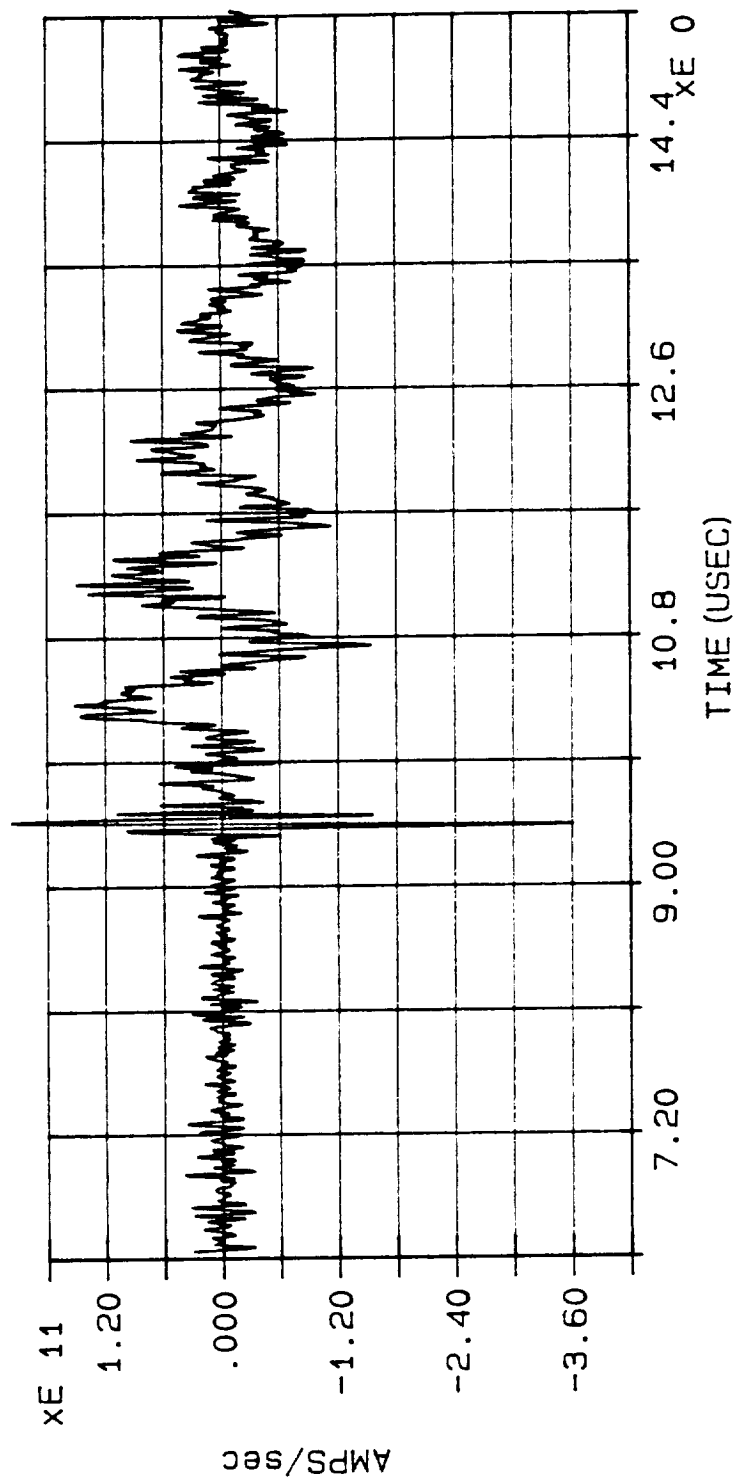
MARX di/dt

DATE: 07/03/90

TIME: 11: 19: 40.53

FILE: C:\CAT\DATA6\MI333.TST

MAX di/dt = -3.610E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #89, ATTACH POINT #3, DISCHARGE #33, CONFIGURATION #2

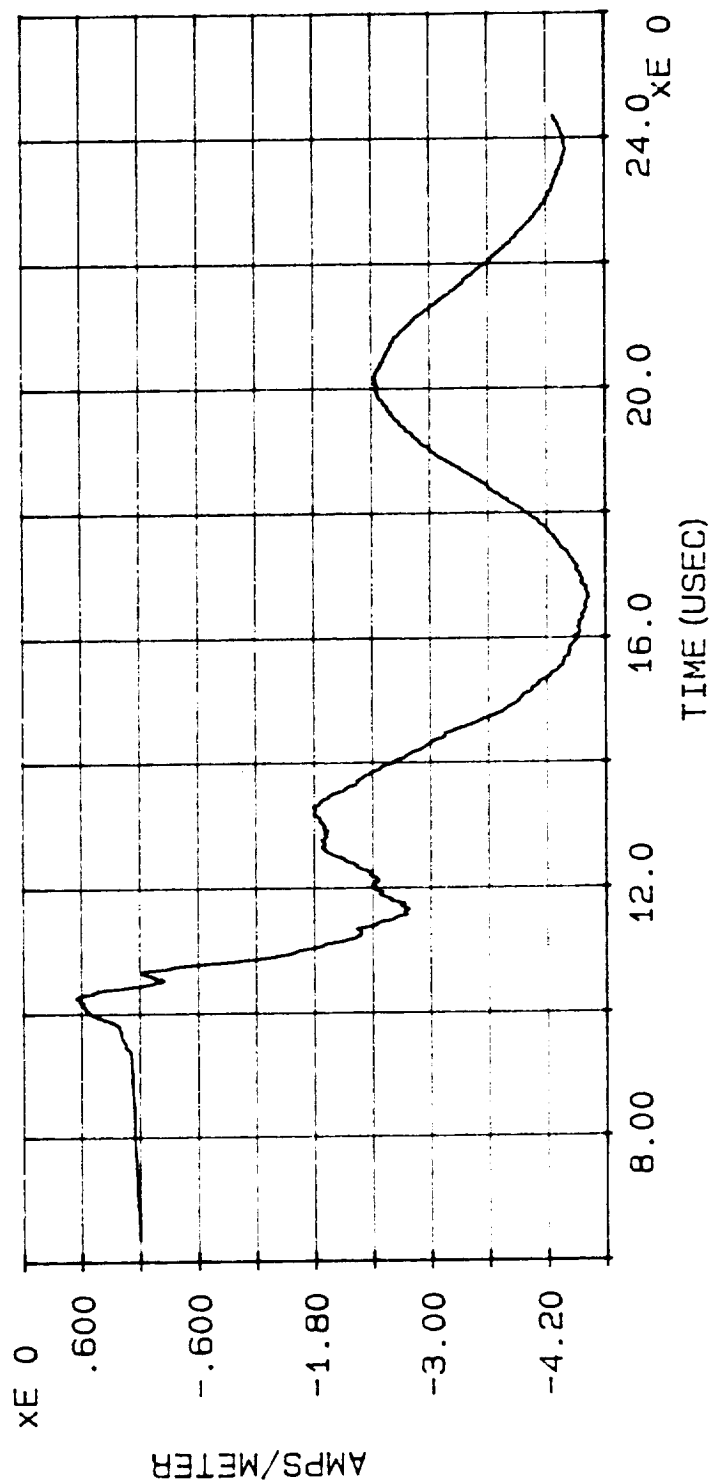
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 14: 45: 16.63

FILE: C:\CAT\DATA6\MB333.TST

MAX H = -4.626E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #88), PLOT #90,
ATTACH POINT #3, DISCHARGE #33

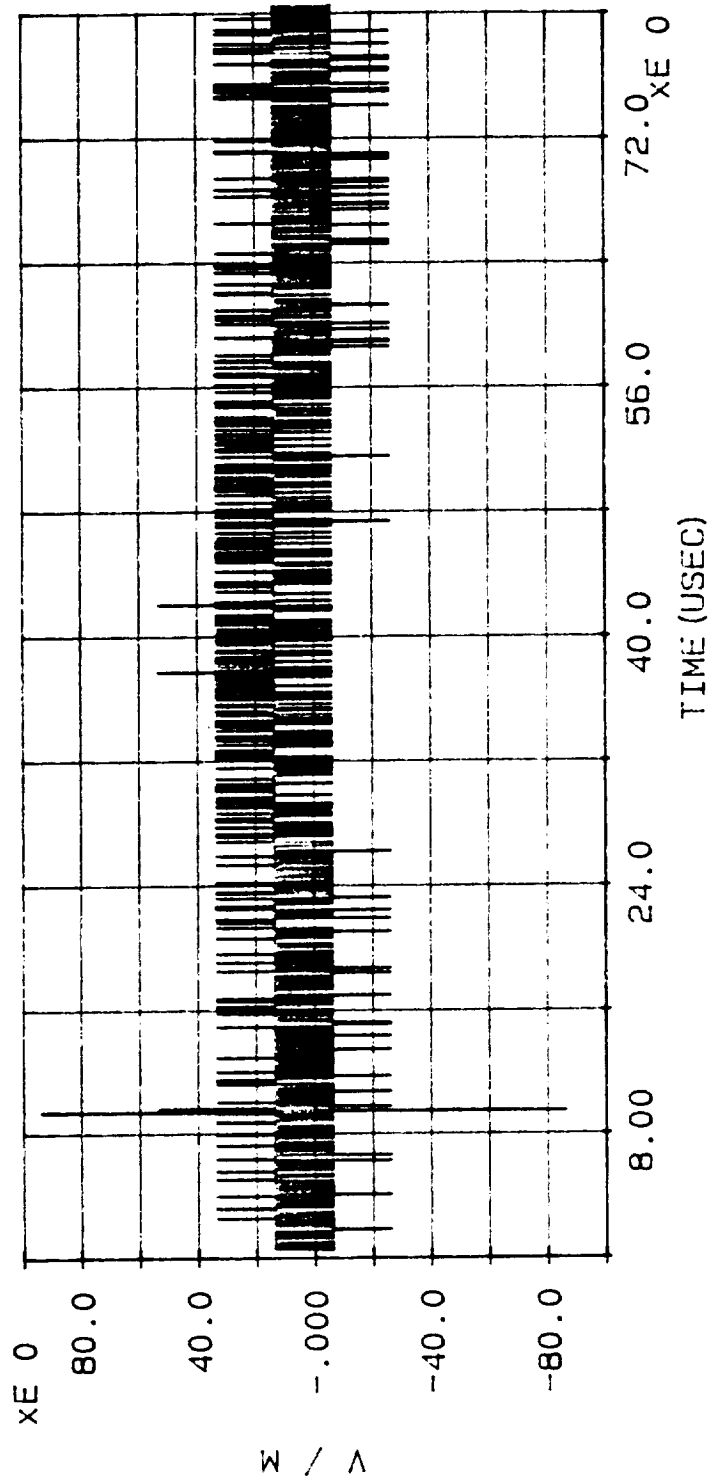
MARX MEASUREMENT: Electric Field

DATE: 07/03/90

TIME: 15: 14: 16.17

FILE: C:\CAT\DATA6\ME333.TST

MAX E-field = 1.539E2



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #88), PLOT #91,
ATTACH POINT #3, DISCHARGE #33

MARX MEASUREMENT: INPUT CURRENT

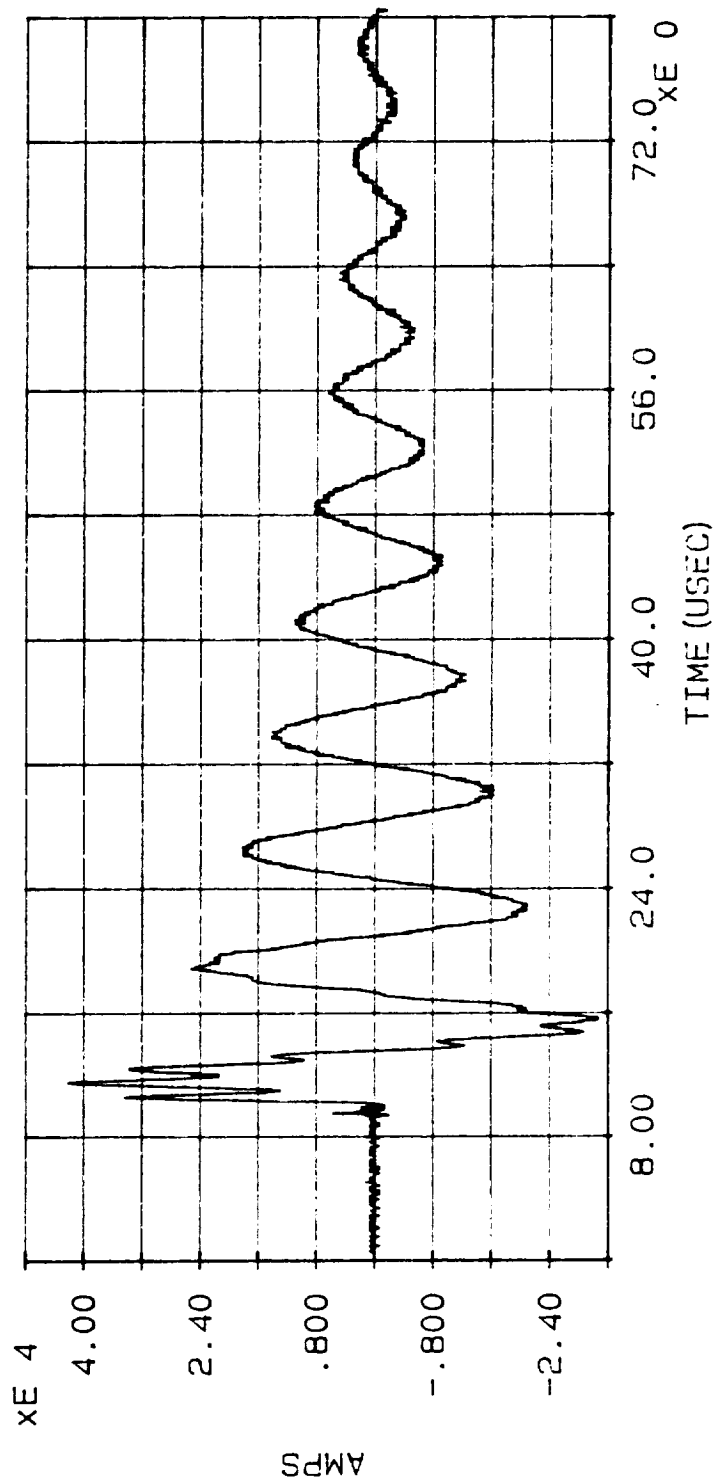
DATE: 07/03/90

TIME: 11:38:09.03

FILE: C:\CAT\DATA6\MI334.TST

MAX CURRENT = 4.291E4

ACTION INTEGRAL = 7.692E3



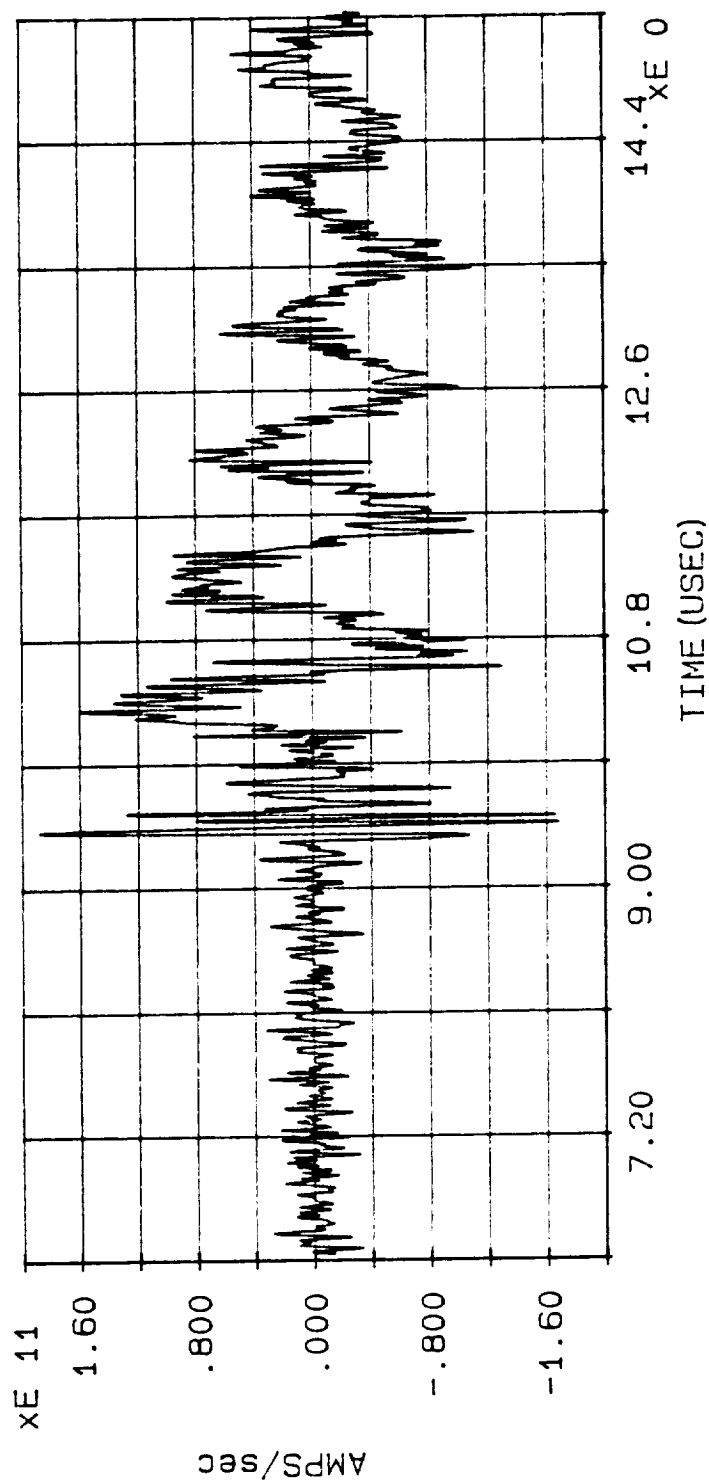
MARX di/dt

DATE: 07/03/90

TIME: 11:23:09.19

FILE: C:\CAT\DATA6\MI334.TST

MAX di/dt = 1.883E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #93, ATTACH POINT #3, DISCHARGE #34, CONFIGURATION #2

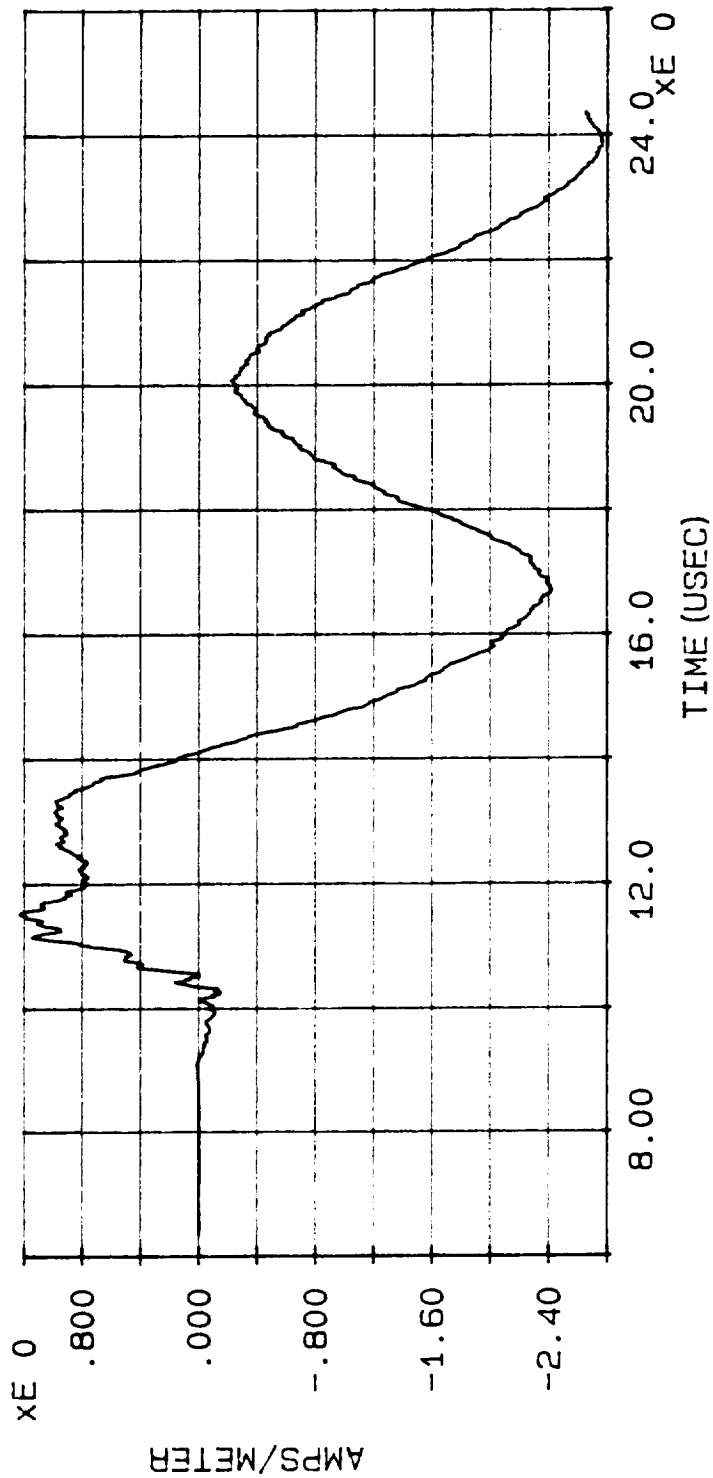
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 14:59:48.07

FILE: C:\CAT\DATA6\MB334.TST

MAX H = -2.764E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #92), PLOT #94,
ATTACH POINT #3, DISCHARGE #34

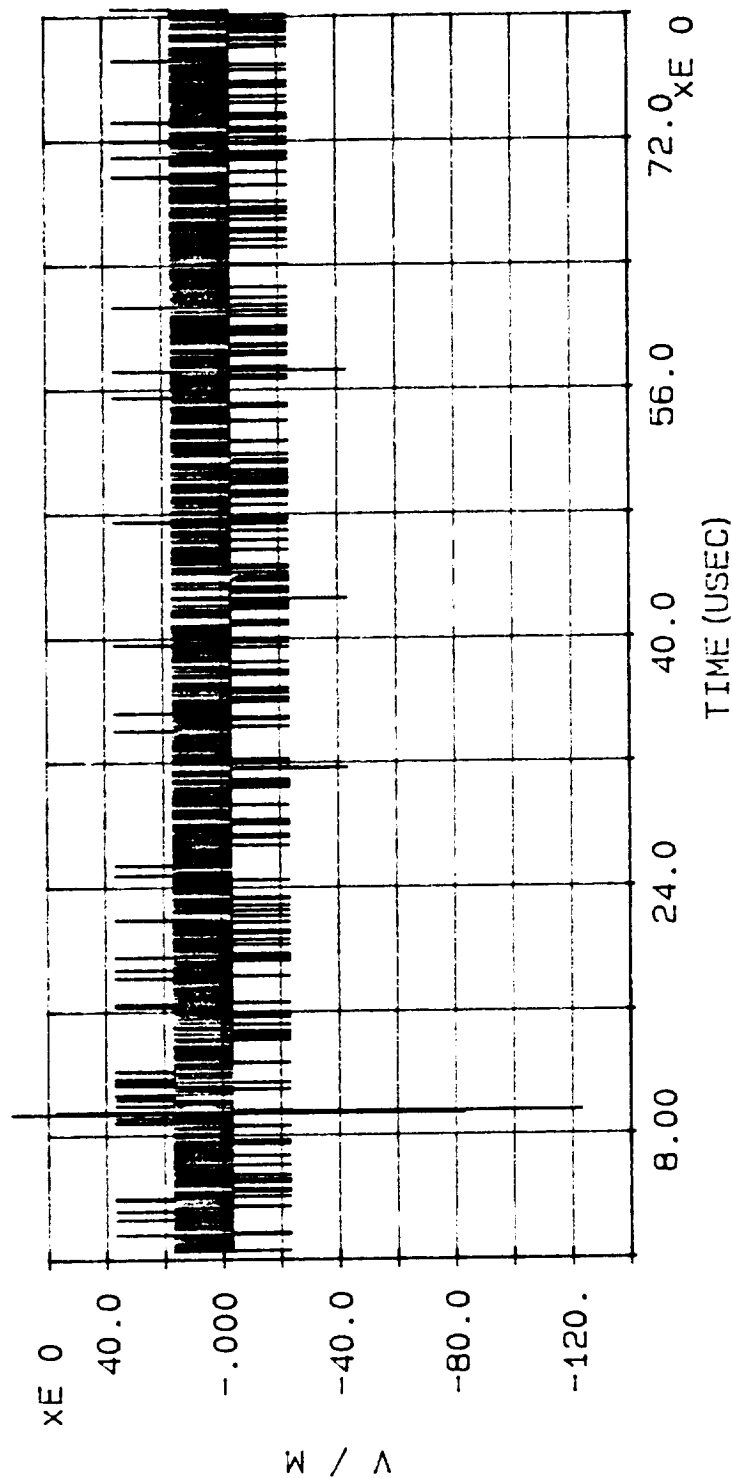
MARX MEASUREMENT: Electric Field

DATE: 07/03/90

TIME: 15: 18: 49.32

FILE: C:\CAT\DATA6\ME334.TST

MAX E-field = -1.231E2



RADIAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #92), PLOT #95,
ATTACH POINT #3, DISCHARGE #34

MARX MEASUREMENT: INPUT CURRENT

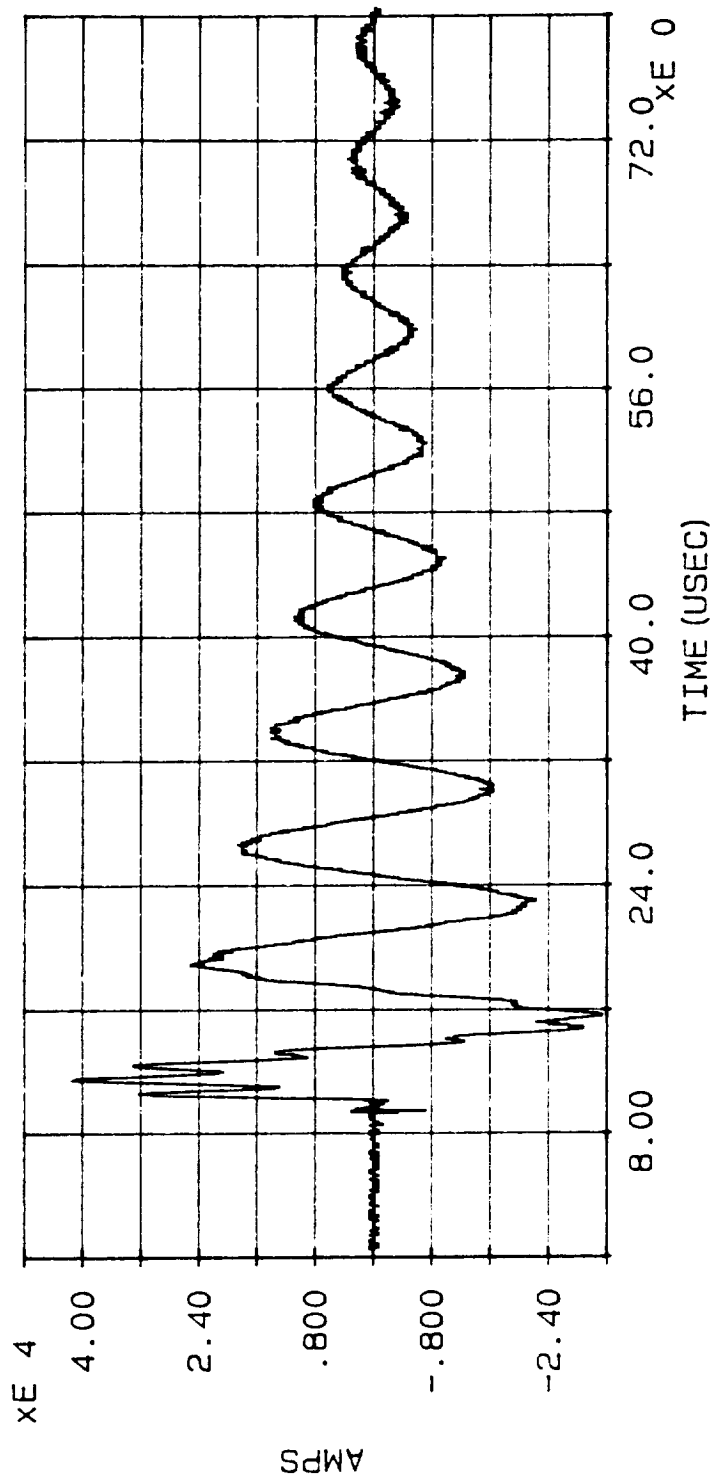
DATE: 07/03/90

TIME: 11:42:00.65

FILE: C:\CAT\DATA6\MI435.TST

MAX CURRENT = 4.217E4

ACTION INTEGRAL = 7.823E3



INJECTION CURRENT WAVEFORM, PLOT #96, ATTACH POINT #4, DISCHARGE #35, CONFIGURATION #2

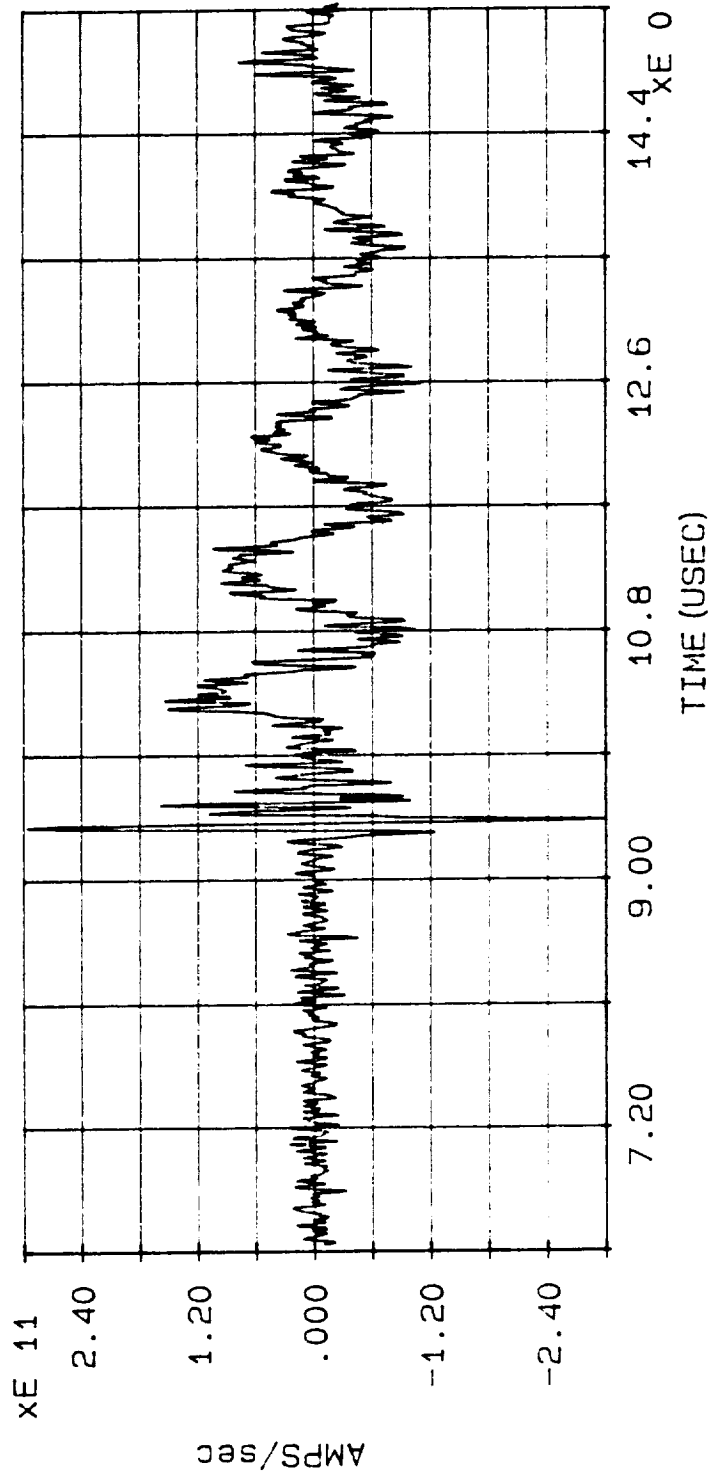
MARX di/dt

DATE: 07/03/90

TIME: 11:27:02.73

FILE: C:\CAT\DATA6\MI435.TST

MAX di/dt = -2.983E11



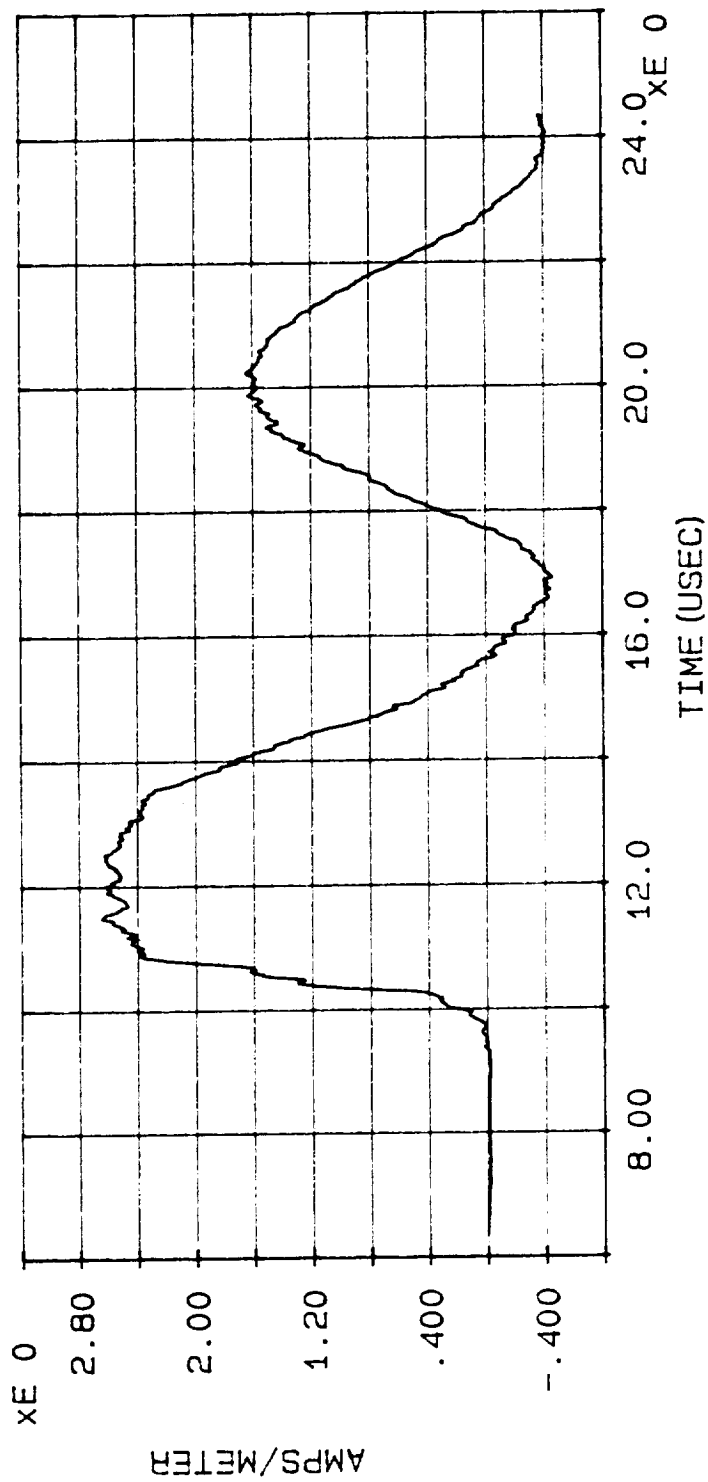
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 15:03:59.47

FILE: C:\CAT\DATA6\MB435.TST

MAX H = 2.650E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #96), PLOT #98,
ATTACH POINT #4, DISCHARGE #35

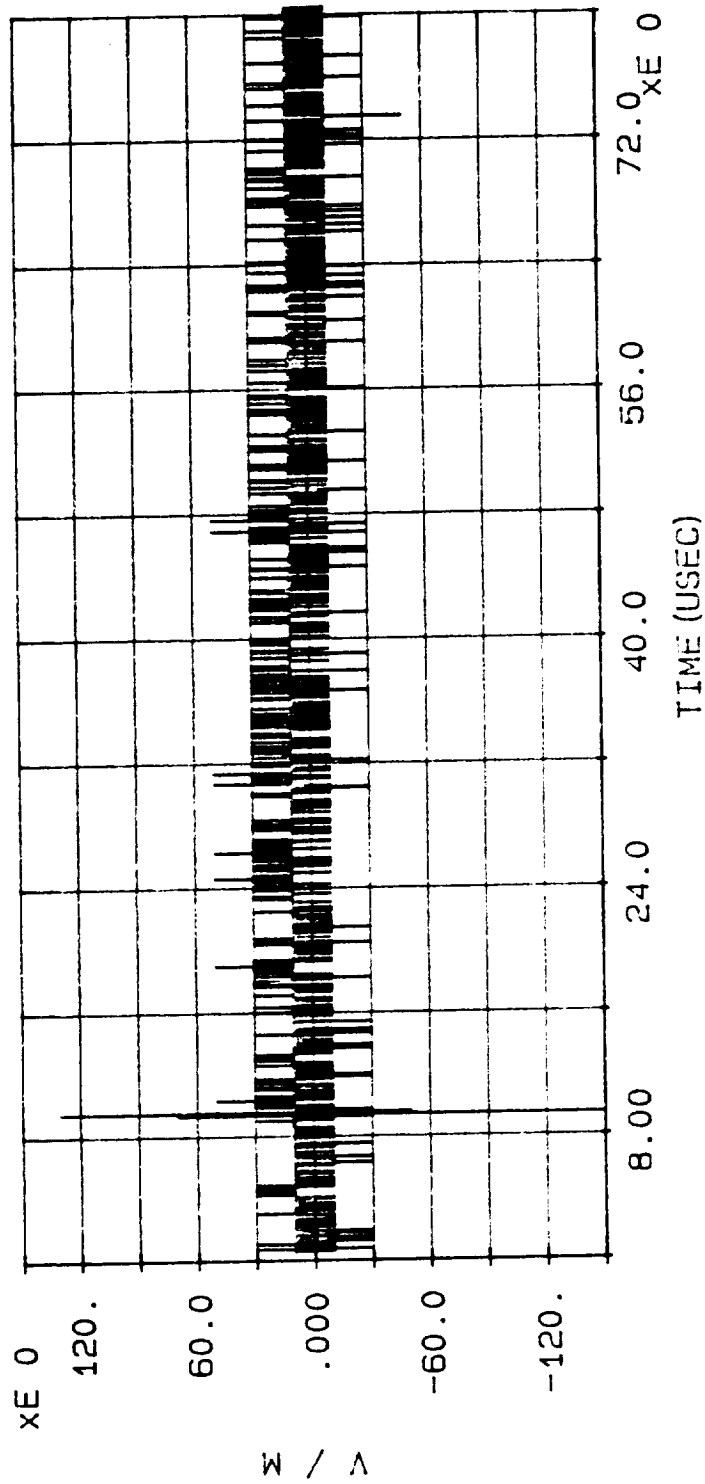
MARX MEASUREMENT: Electric Field

DATE: 07/03/90

TIME: 15:23:14.44

FILE: C:\CAT\DATA6\ME435.TST

MAX E-field = -2.097E2



RADIAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #96), PLOT #99,
ATTACH POINT #4, DISCHARGE #35

MARX MEASUREMENT: INPUT CURRENT

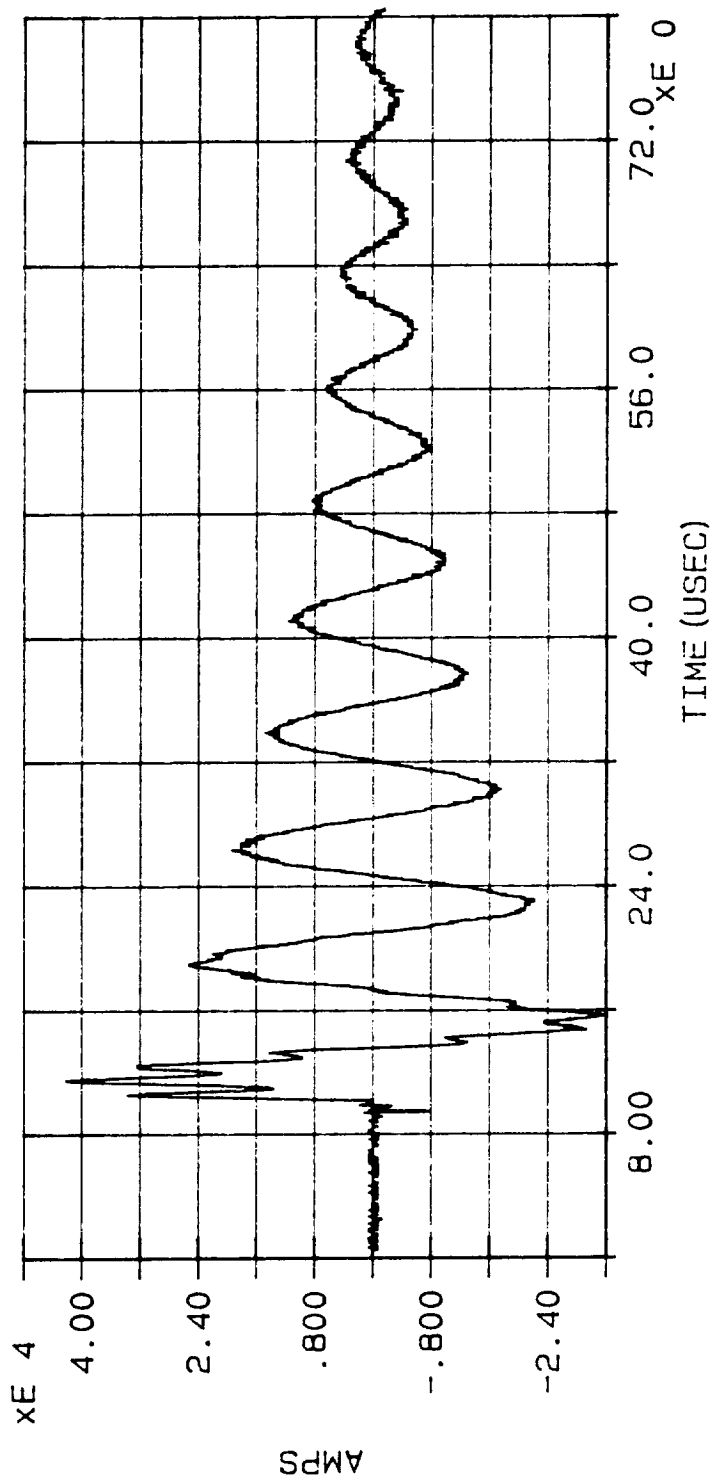
DATE: 07/03/90

TIME: 11: 46: 53.30

FILE: C:\CAT\DATA6\MI436.TST

MAX CURRENT = 4.226E4

ACTION INTEGRAL = 7.889E3



INJECTION CURRENT WAVEFORM, PLOT #100, ATTACH POINT #4, DISCHARGE #36, CONFIGURATION #2

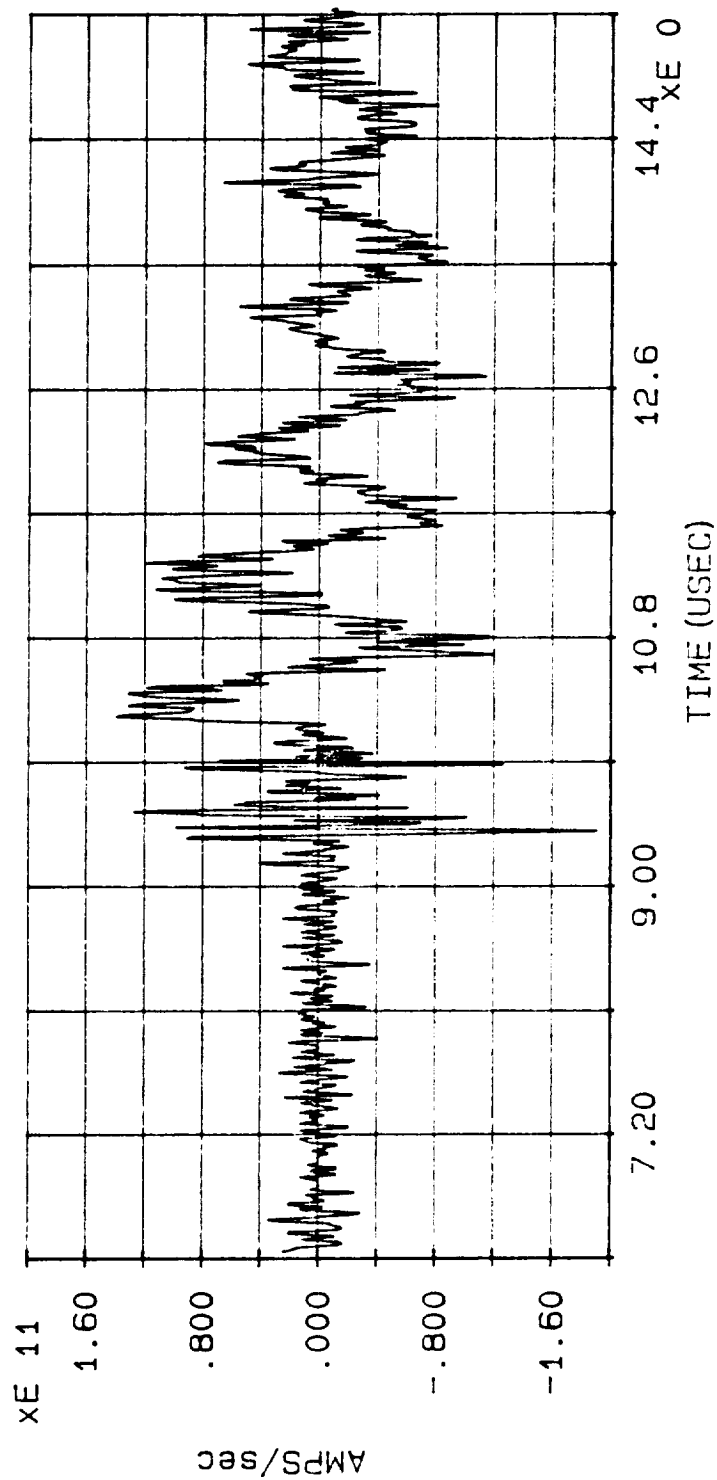
MARX di/dt

DATE: 07/03/90

TIME: 11:30:30.07

FILE: C:\CAT\DATA6\MI436.TST

MAX di/dt = -1.906E11



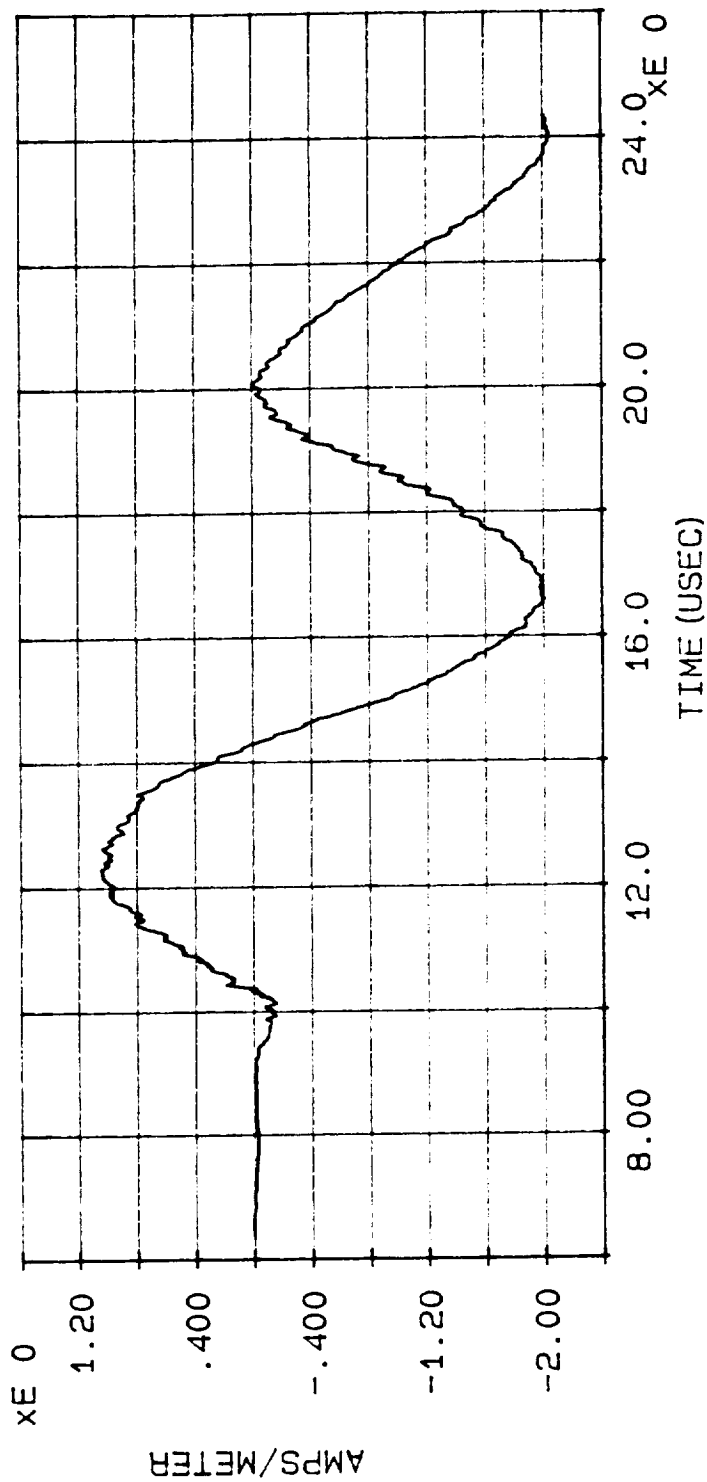
MARX Measurement: Magnetic Field

DATE: 07/03/90

TIME: 15:09:27.54

FILE: C:\CAT\DATA6\MB436.TST

MAX H = -2.042E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #100), PLOT #102, ATTACH POINT #4, DISCHARGE #36

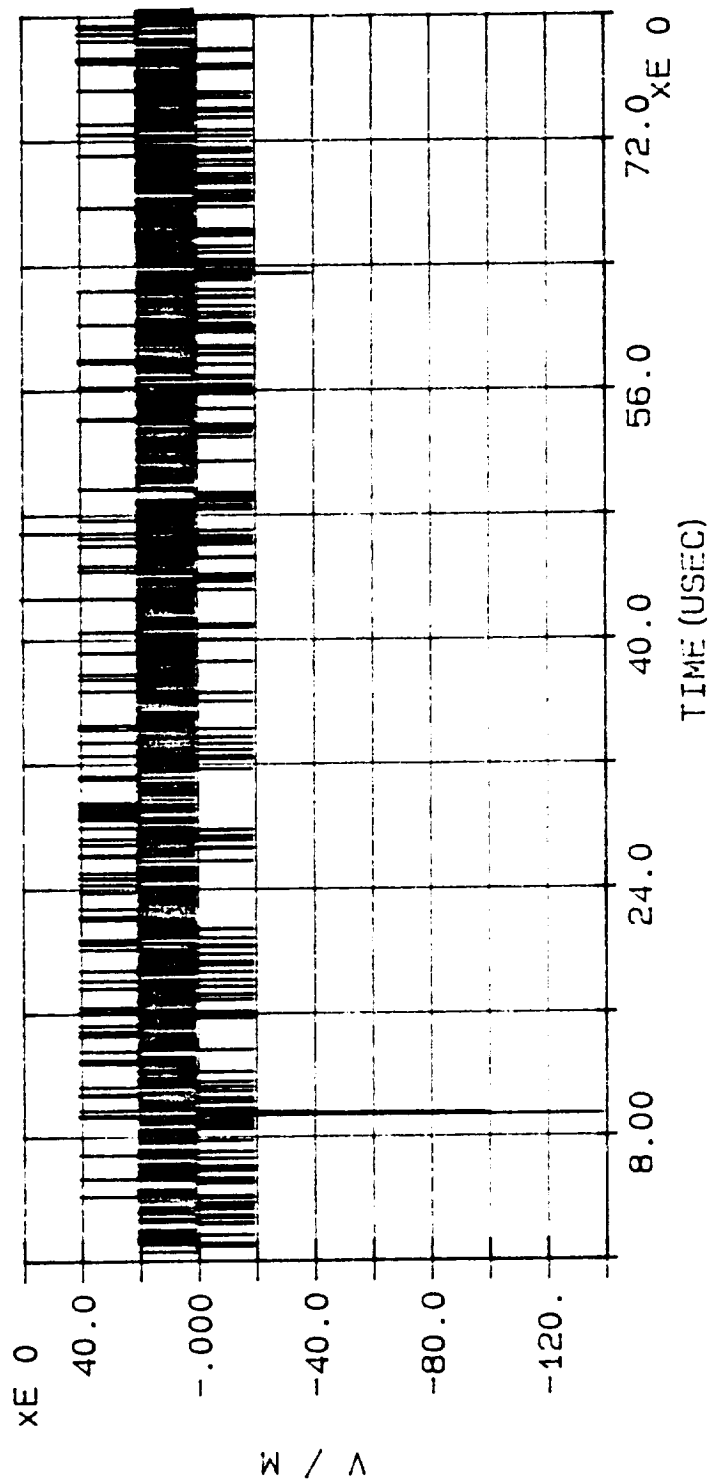
MARX MEASUREMENT: Electric Field

DATE: 07/03/90

TIME: 15:27:58.85

FILE: C:\CAT\DATA6\ME436.TST

MAX E-field = -1.788E2



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #100), PLOT #103,
ATTACH POINT #4, DISCHARGE #36

COMPOSITE CURRENT BANK: HIGH CURRENT

DATE: 07/05/90

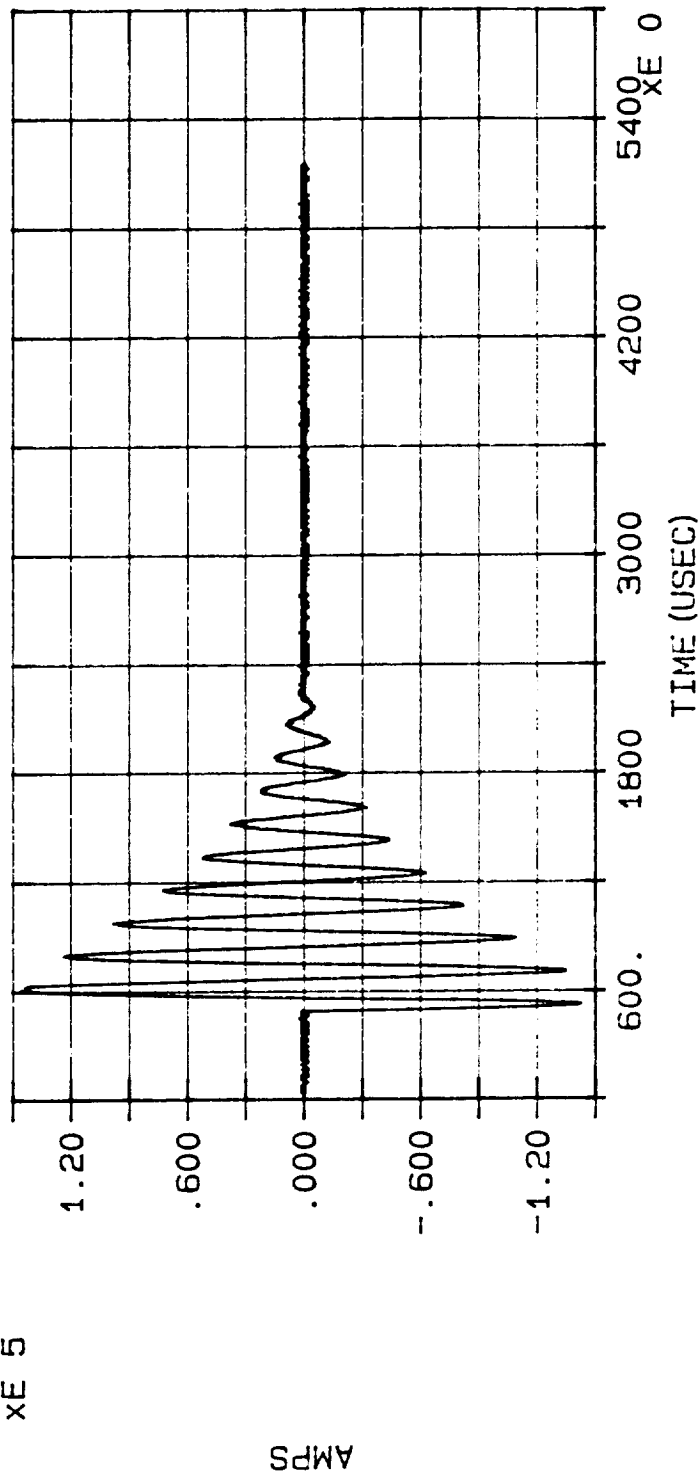
TIME: 10:03:35.23

datap FILE: C:\HCI\H_CHAN1.037

MAX CURRENT = 1.464E5

ACTION INTEGRAL = 5.494E6

XE 5



INJECTION CURRENT WAVEFORM, PLOT #104, ATTACH POINT #?, DISCHARGE #37, CONFIGURATION #2

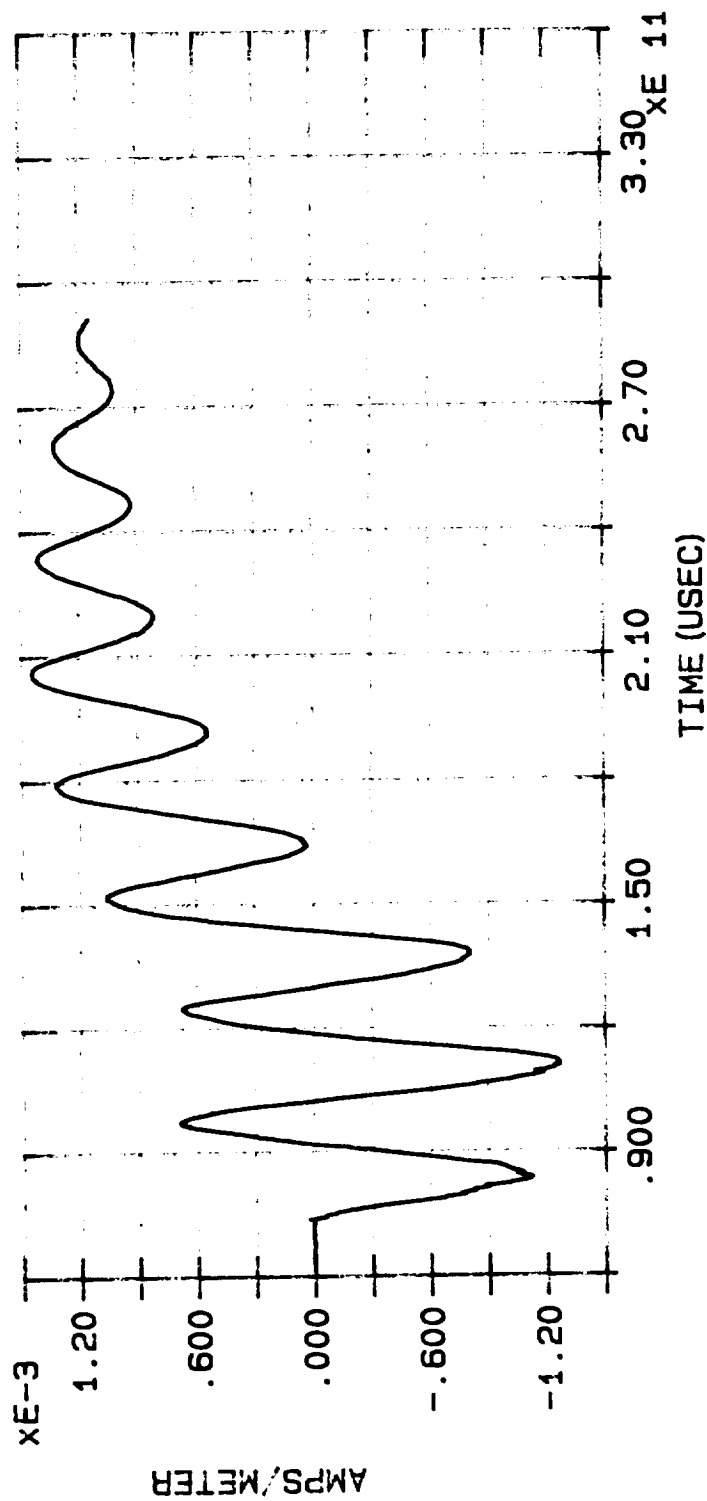
HCB Measurement: Magnetic Field

DATE: 08/14/90

TIME: 13:34:19.19

FILE: C:\HCI\H_CHAN2.037

MAX H = 1.446E-3



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #104), PLOT #105, ATTACH POINT #?, DISCHARGE #37

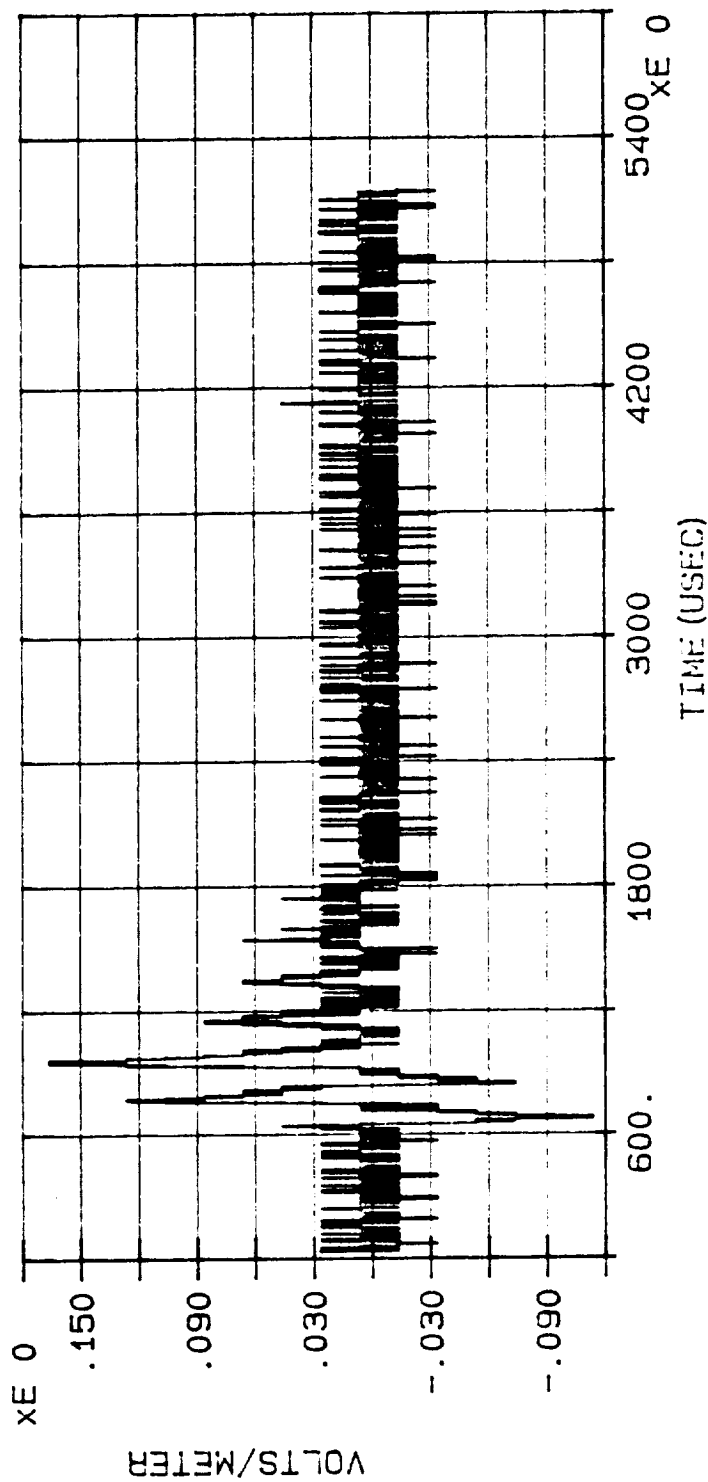
HIGH CURRENT BANK MEASUREMENT: Electric Field

DATE: 07/05/90

TIME: 10:02:42.77

FILE: C:\HCI\H_CHAN3.037

MAX E-field = 1.865E-1



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #104), PLOT #106,
ATTACH POINT #?, DISCHARGE #37

COMPOSITE CURRENT BANK: HIGH CURRENT

DATE: 07/05/90

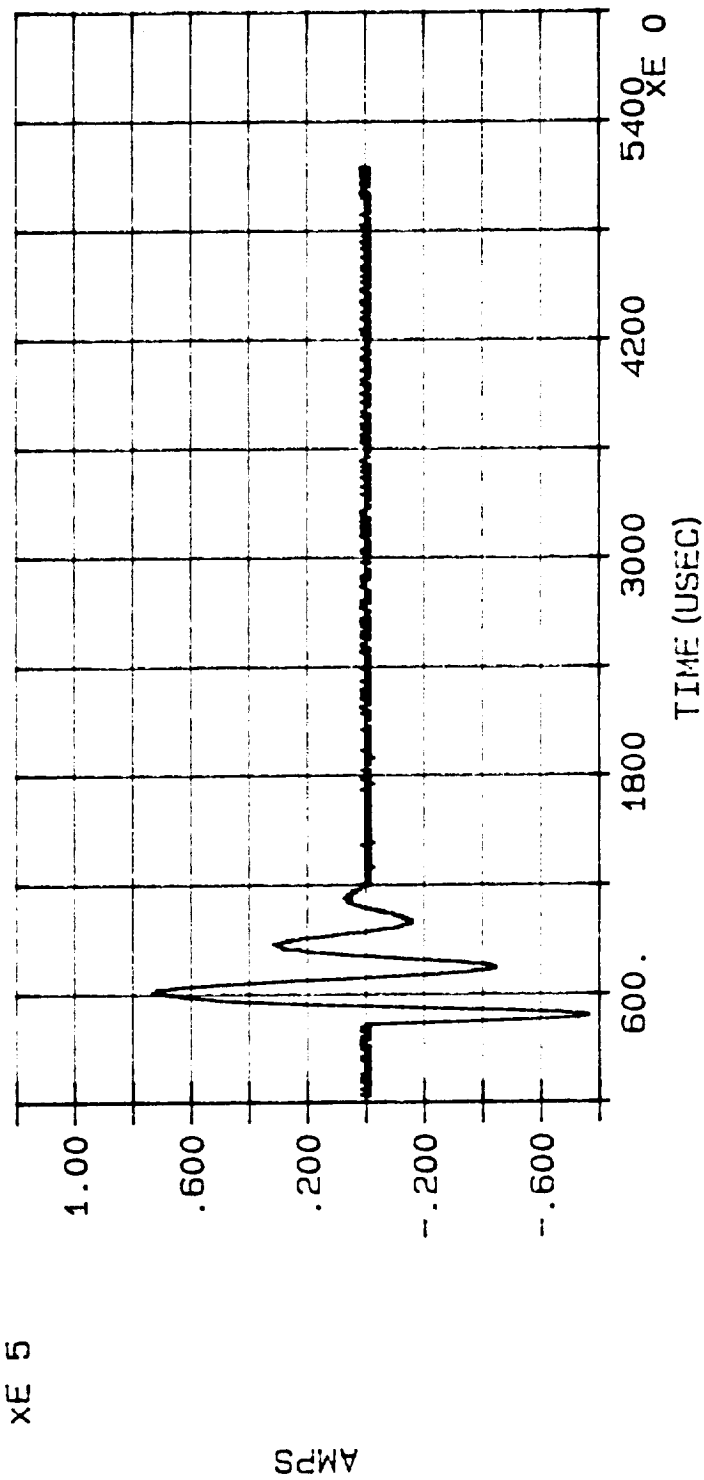
TIME: 11:45:10.26

datap FILE: C:\HCI\H_CHAN1.038

MAX CURRENT = $-7.790E4$

ACTION INTEGRAL = $9.064E5$

xE 5



INJECTION CURRENT WAVEFORM, PLOT #107, ATTACH POINT #?, DISCHARGE #38, CONFIGURATION #2

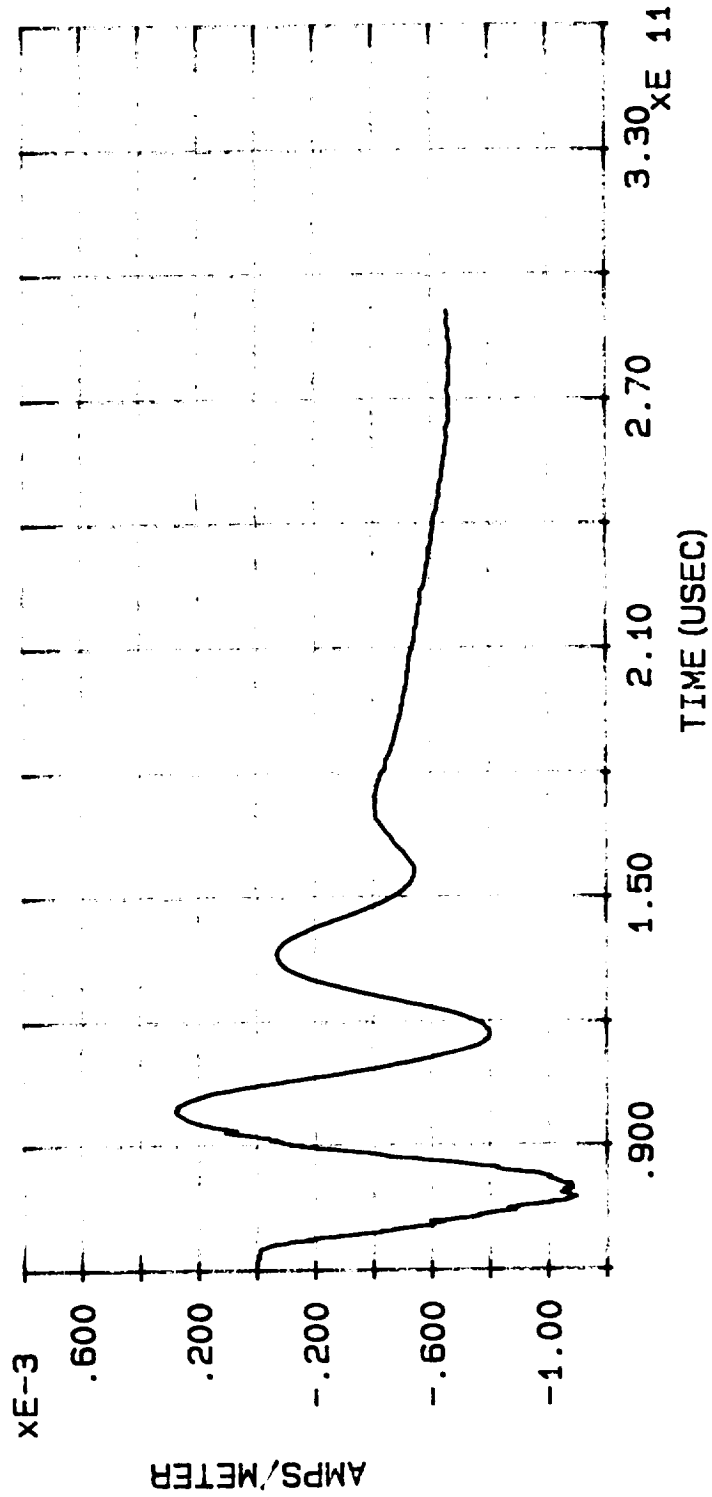
HCB Measurement: Magnetic Field

DATE: 08/14/90

TIME: 13:40:41.08

FILE: C:\HCI\H_CHAN2.038 N2.038

MAX H = -1.096E-3



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #107), PLOT #108,
ATTACH POINT #?, DISCHARGE #38

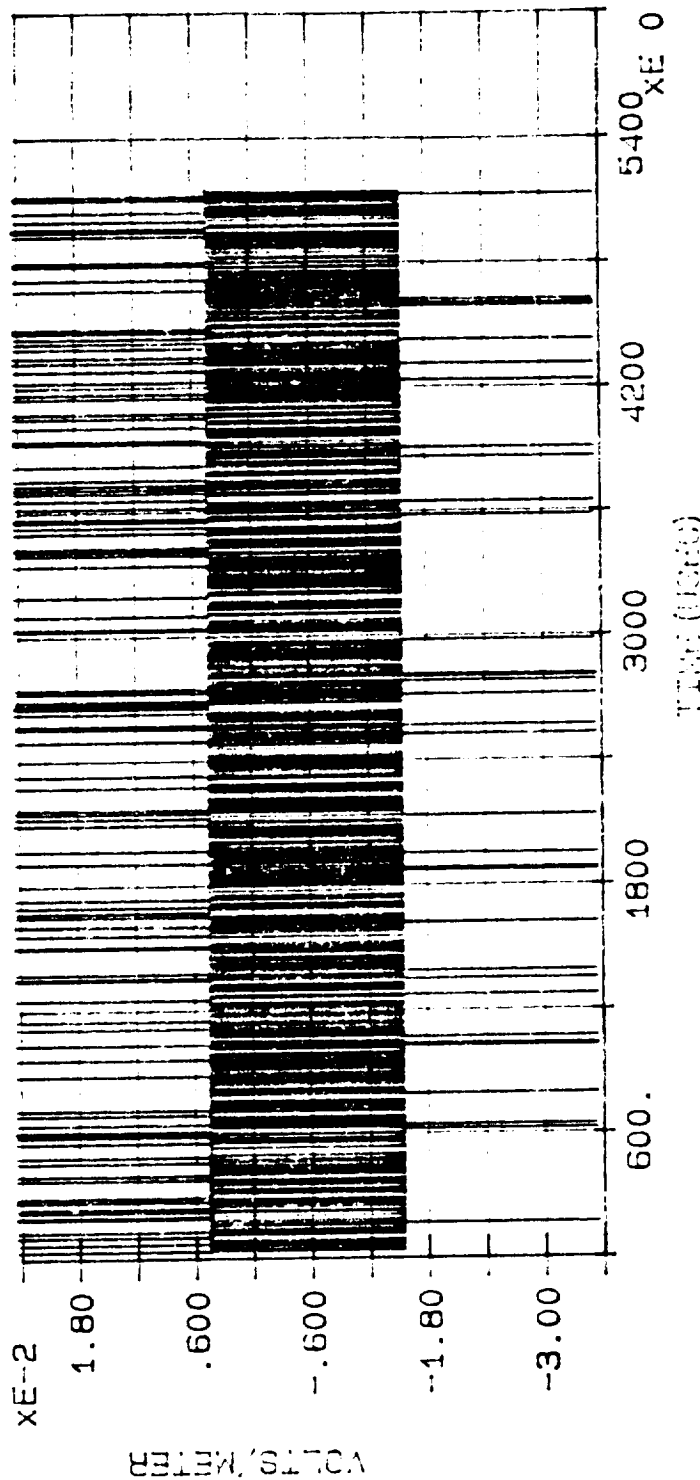
HIGH CURRENT BANK MEASUREMENT: Electric Field

DATE: 07/05/90

TIME: 11: 44: 32.36

FILE: C:\HCI\H_CHAN3.038

MAX E-field = -3.547E-2



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #107), PLOT #109,
ATTACH POINT #?, DISCHARGE #38

MARX MEASUREMENT: INPUT CURRENT

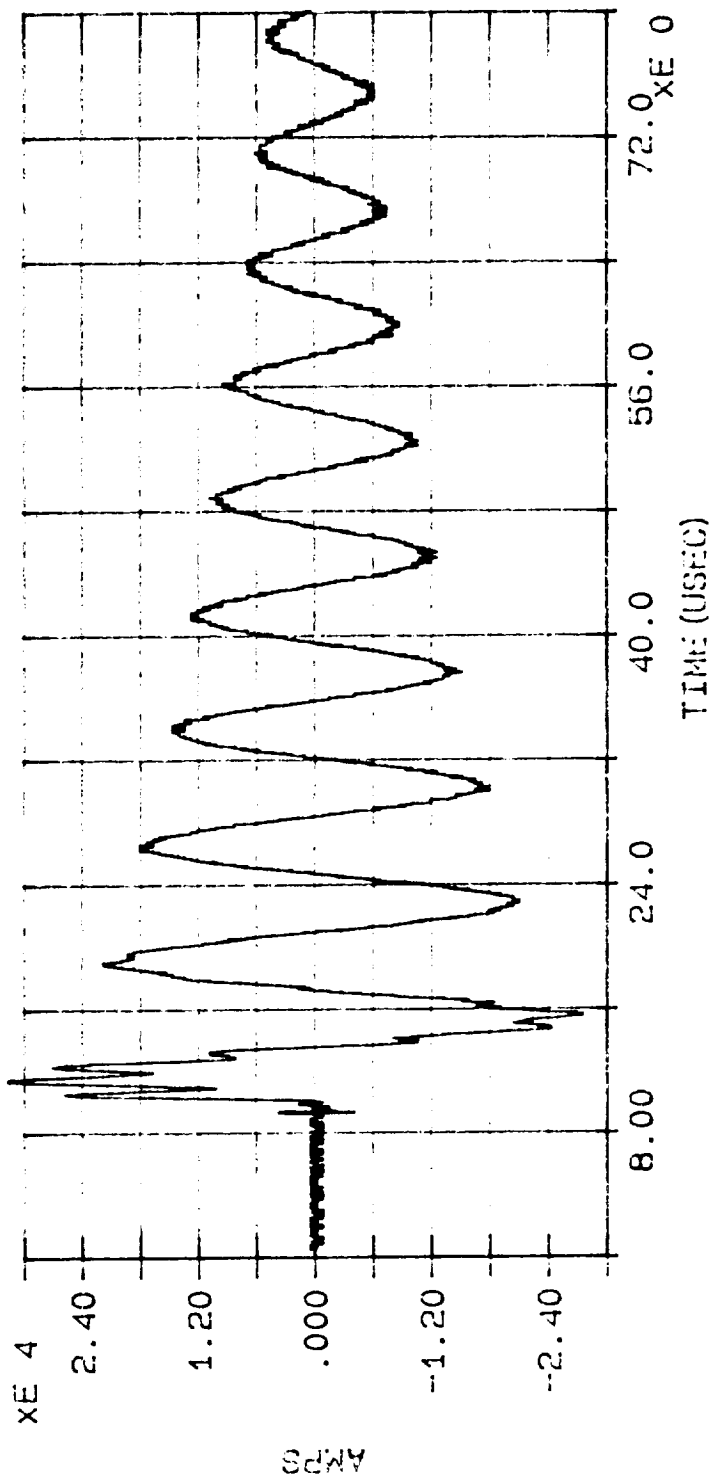
DATE: 07/05/90

TIME: 16:15:47.22

FILE: C:\CAT\DATA6\MI539.TST

MAX CURRENT = 3.234E4

ACTION INTEGRAL = 7.388E3



INJECTION CURRENT WAVEFORM, PLOT #110, ATTACH POINT #5, DISCHARGE #39, CONFIGURATION #3

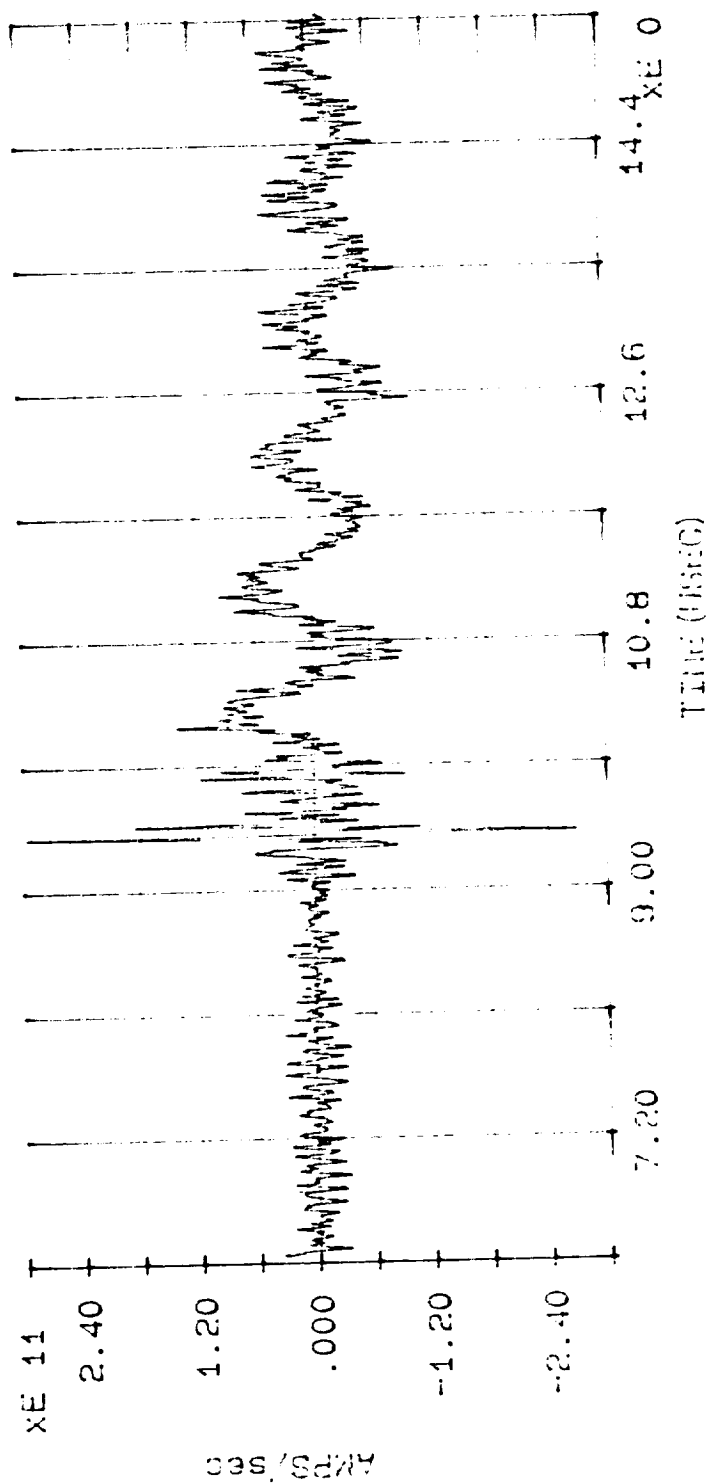
MAX di/dt

DATE: 07/06/90

TIME: 08:31:58.40

FILE: C:\CAT\DATA6\M1539.TST

MAX di/dt = 2.966E11



ORIGINAL PAGE IS
OF POOR QUALITY

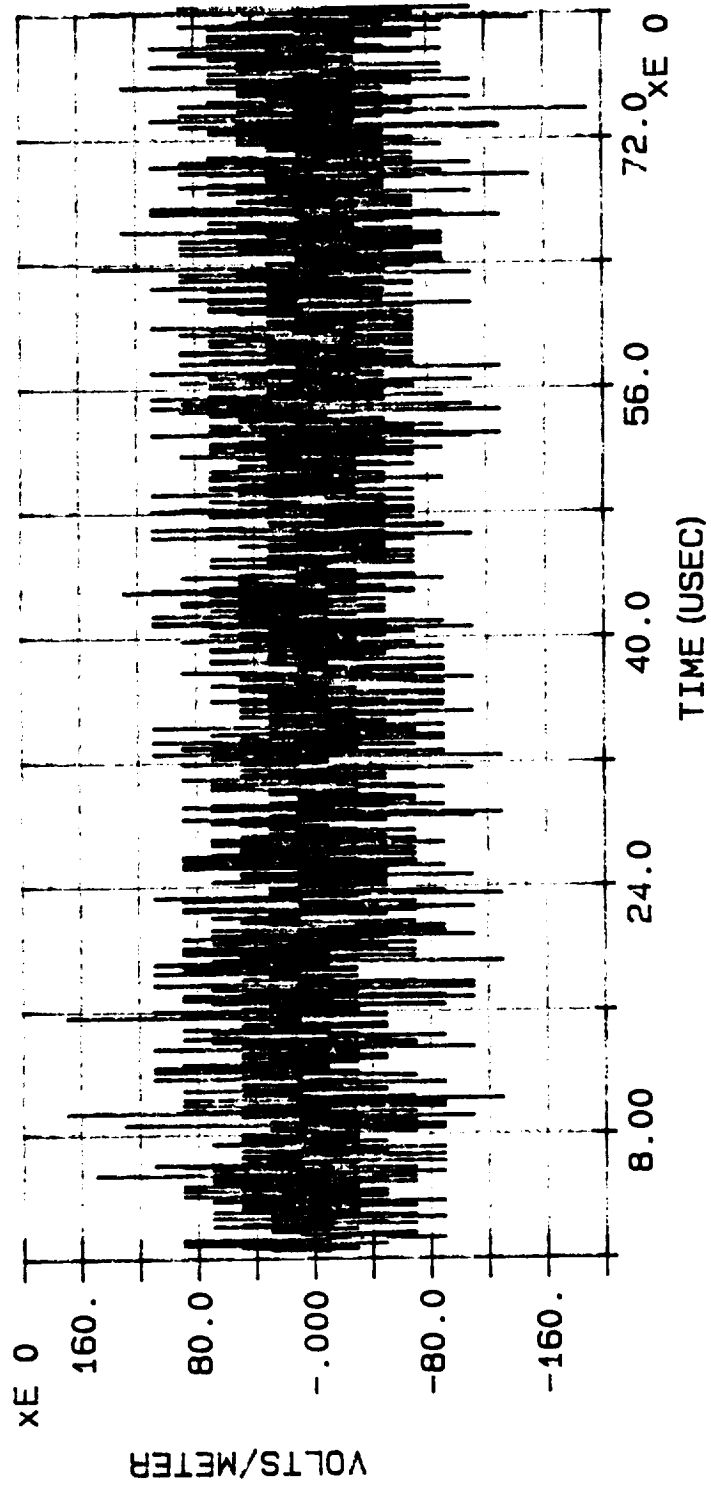
MARX MEASUREMENT: Electric Field

DATE: 07/06/90

TIME: 10:51:54.09

FILE: C:\CAT\DATA6\ME539.TST

MAX E-field = -2.099E2



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #110), PLOT #113,
ATTACH POINT #5, DISCHARGE #39

MAX MEASUREMENT: INPUT CURRENT

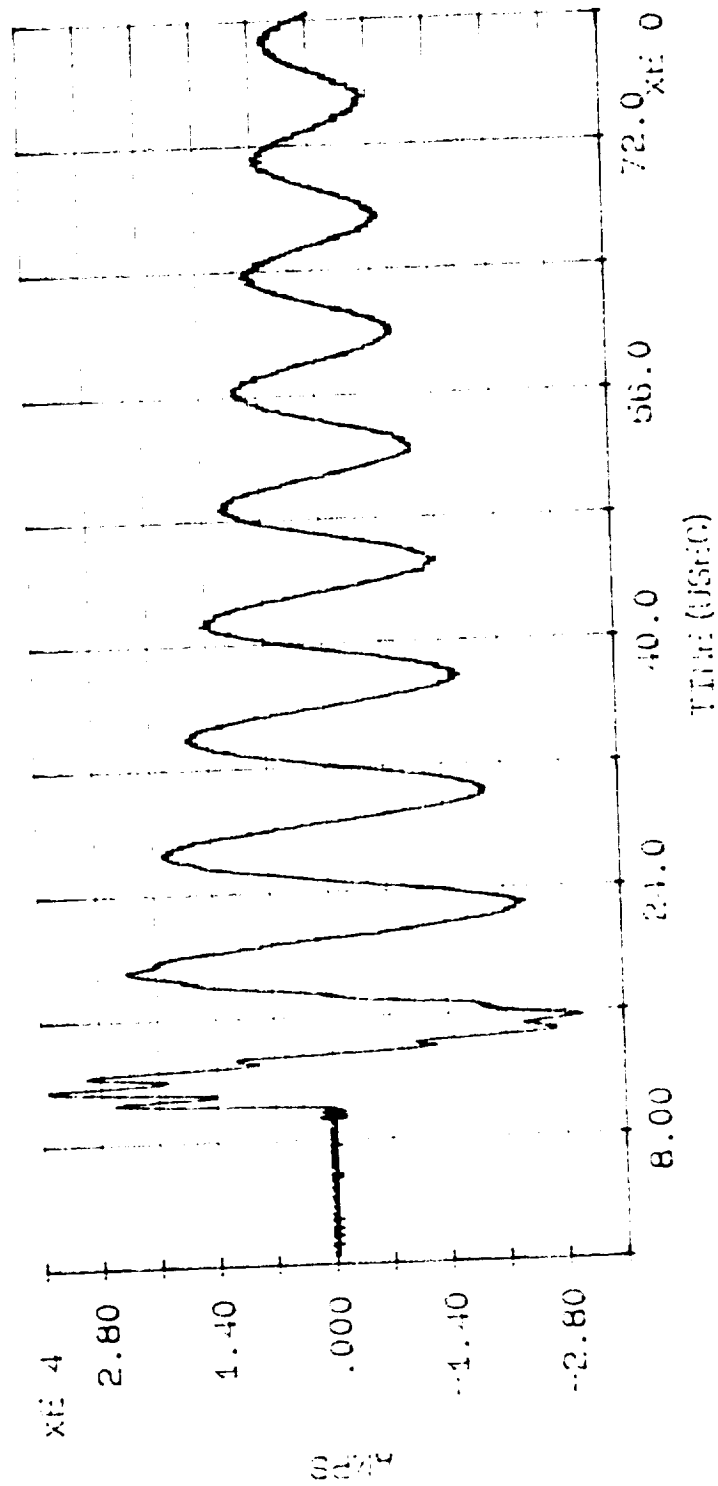
DATE: 07/05/90

TIME: 17:27:25.47

FILE: C:\CAT\DATA6\M1540.TST

MAX CURRENT = 3.554E4

ACTION INTEGRAL = 9.136E3



INJECTION CURRENT WAVEFORM, PLOT #114, ATTACH POINT #5, DISCHARGE #40, CONFIGURATION #3

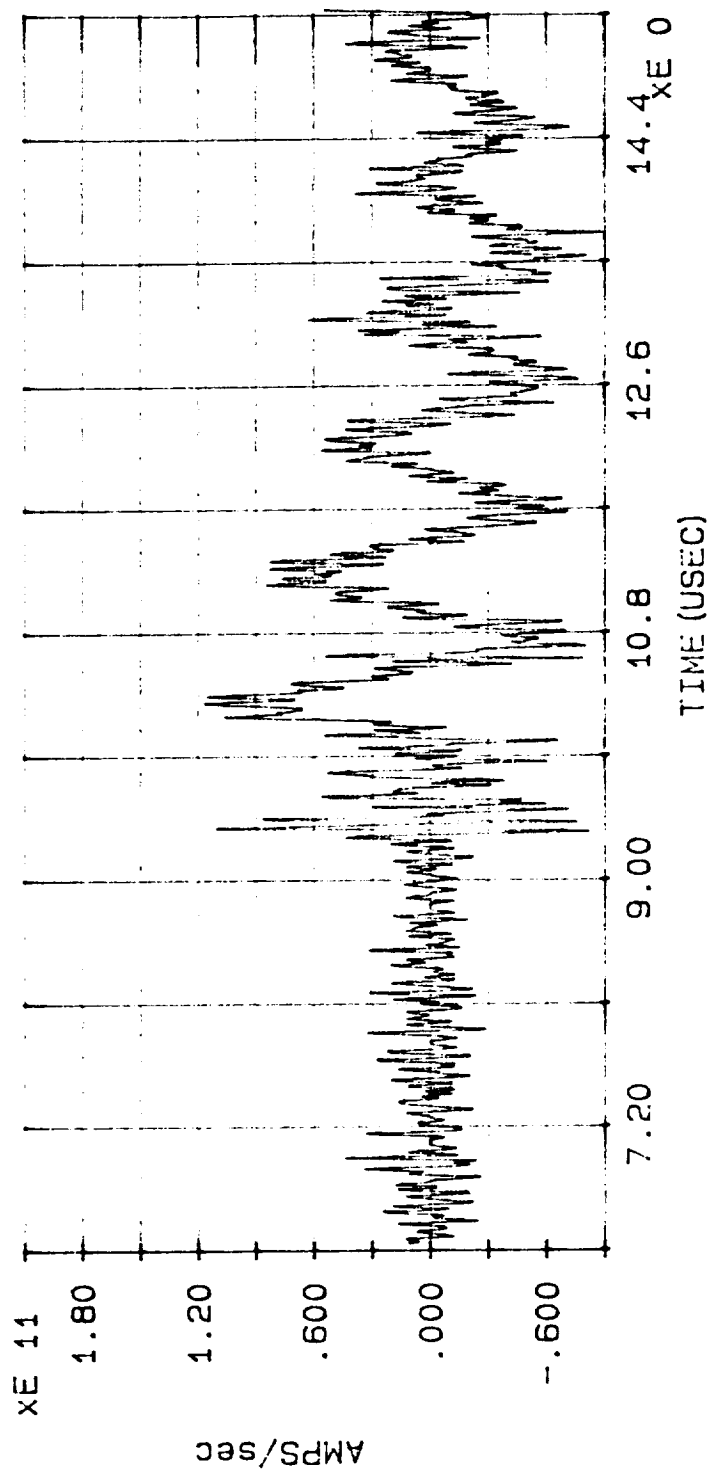
MARX di/dt

DATE: 07/06/90

TIME: 08:36:43.18

FILE: C:\CAT\DATA6\MI540.TST

MAX di/dt = 1.168E11



DERIVATIVE OF INJECTION CURRENT WAVEFORM, PLOT #115, ATTACH POINT #5, DISCHARGE #40, CONFIGURATION #3

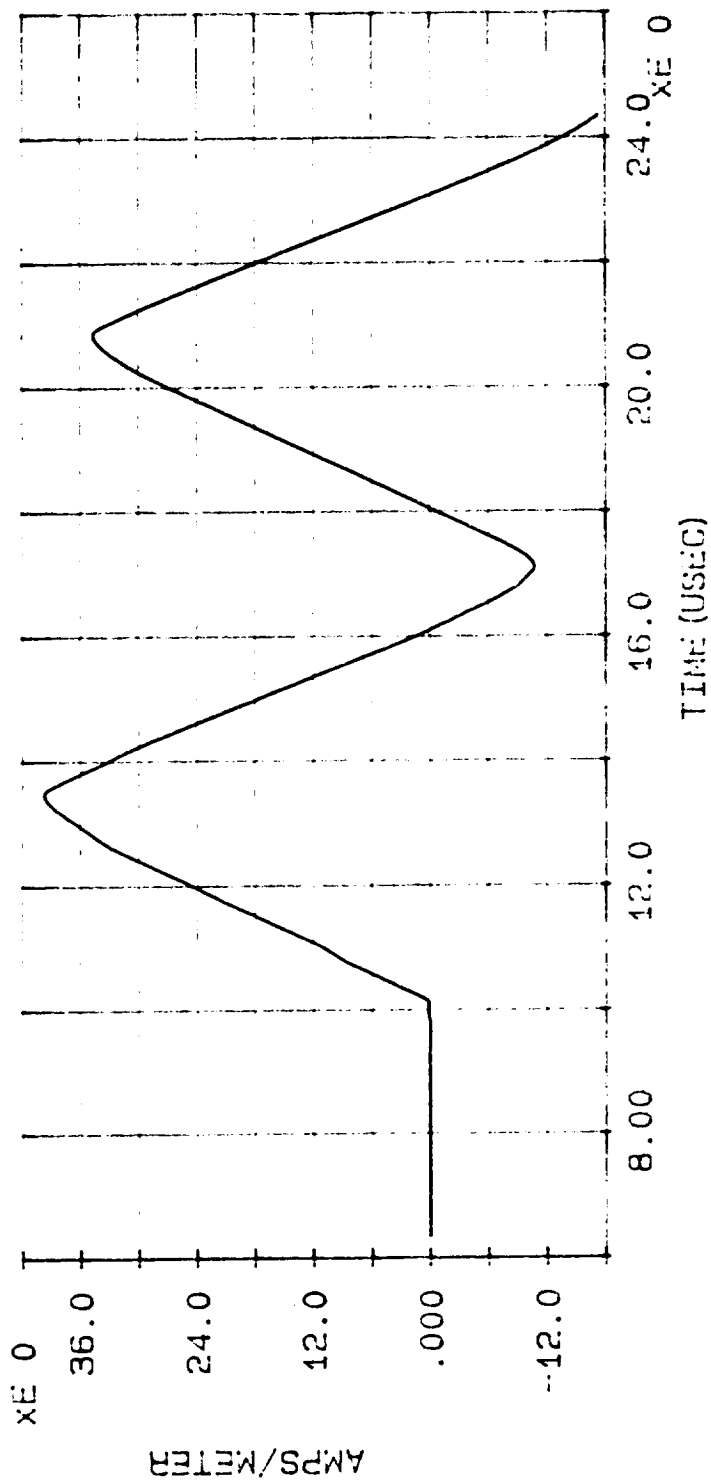
MARX Measurement: Magnetic Field

DATE: 07/05/90

TIME: 17:19:35.09

FILE: C:\CAT\DATA6\MB540.TST

MAX H = 3.973E1



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #114), PLOT #116,
ATTACH POINT #5, DISCHARGE #40

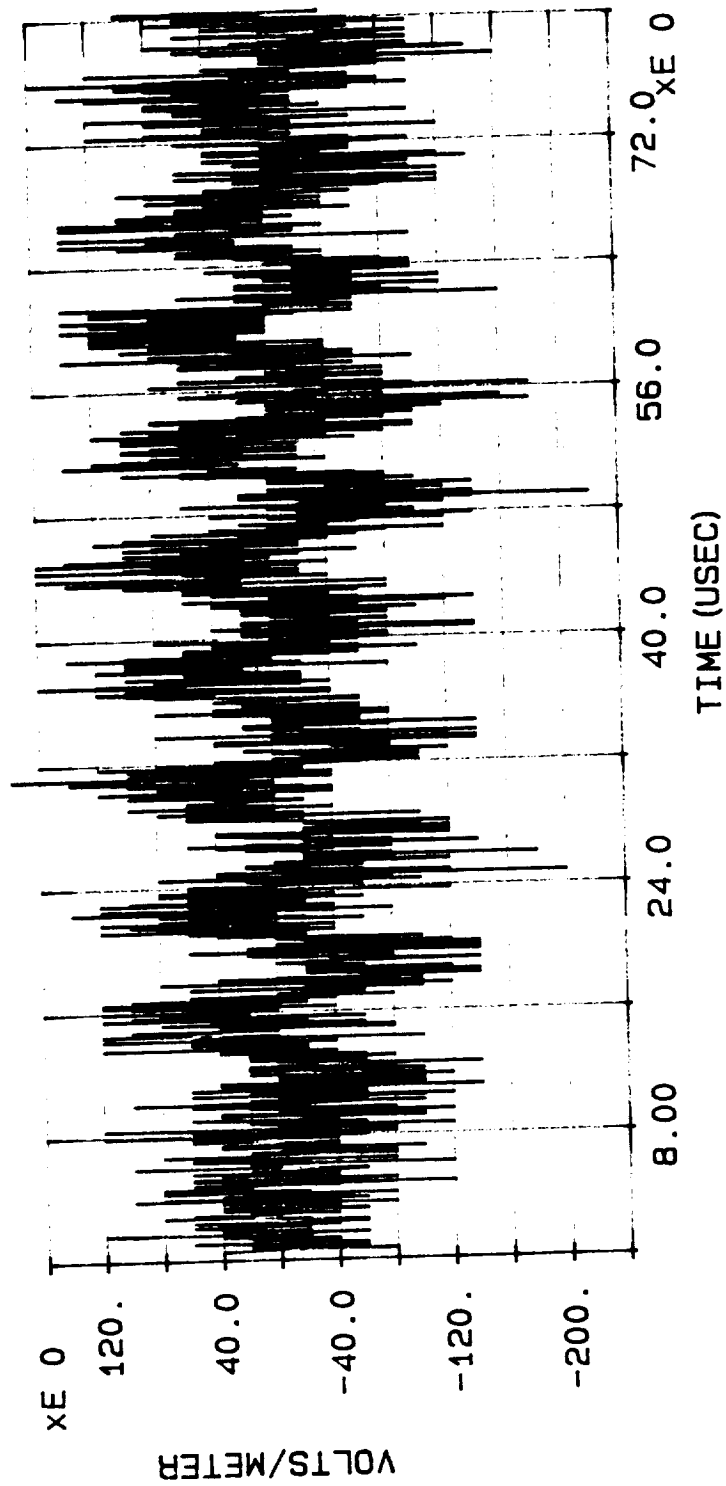
MARX MEASUREMENT: Electric Field

DATE: 07/06/90

TIME: 10:29:50.88

FILE: C:\CAT\DATA6\ME540.TST

MAX E-field = -2.400E2



RADIAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #114), PLOT #117,
ATTACH POINT #5, DISCHARGE #40

MAX MEASUREMENT: INPUT CURRENT

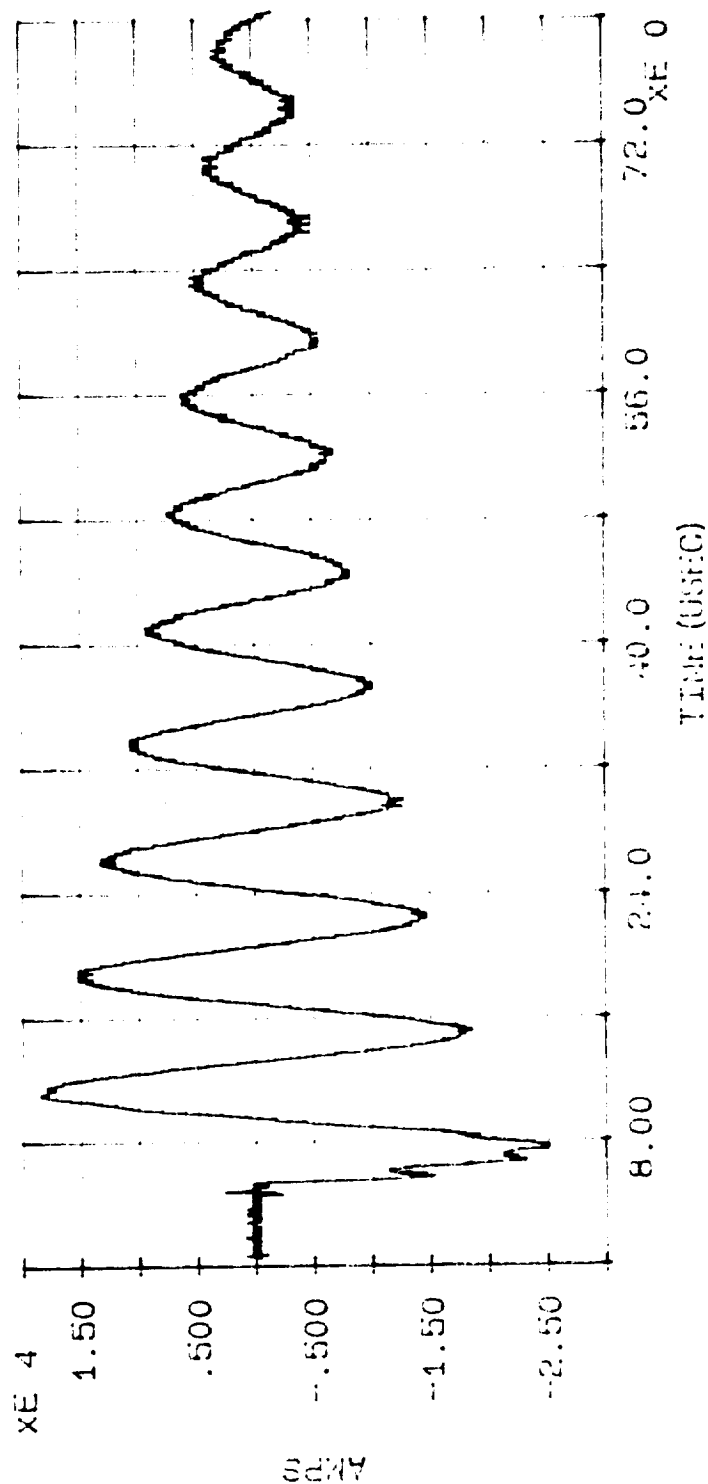
DATE: 07/05/90

TIME: 17:35:30.74

FILE: C:\CAT\DATA6\M1341.TST

MAX CURRENT = $-2.575E4$

ACTION INTEGRAL = $4.864E3$



INJECTION CURRENT WAVEFORM, PLOT #118, ATTACH POINT #3, DISCHARGE #41, CONFIGURATION #3

ORIGINAL PAGE IS
OF POOR QUALITY

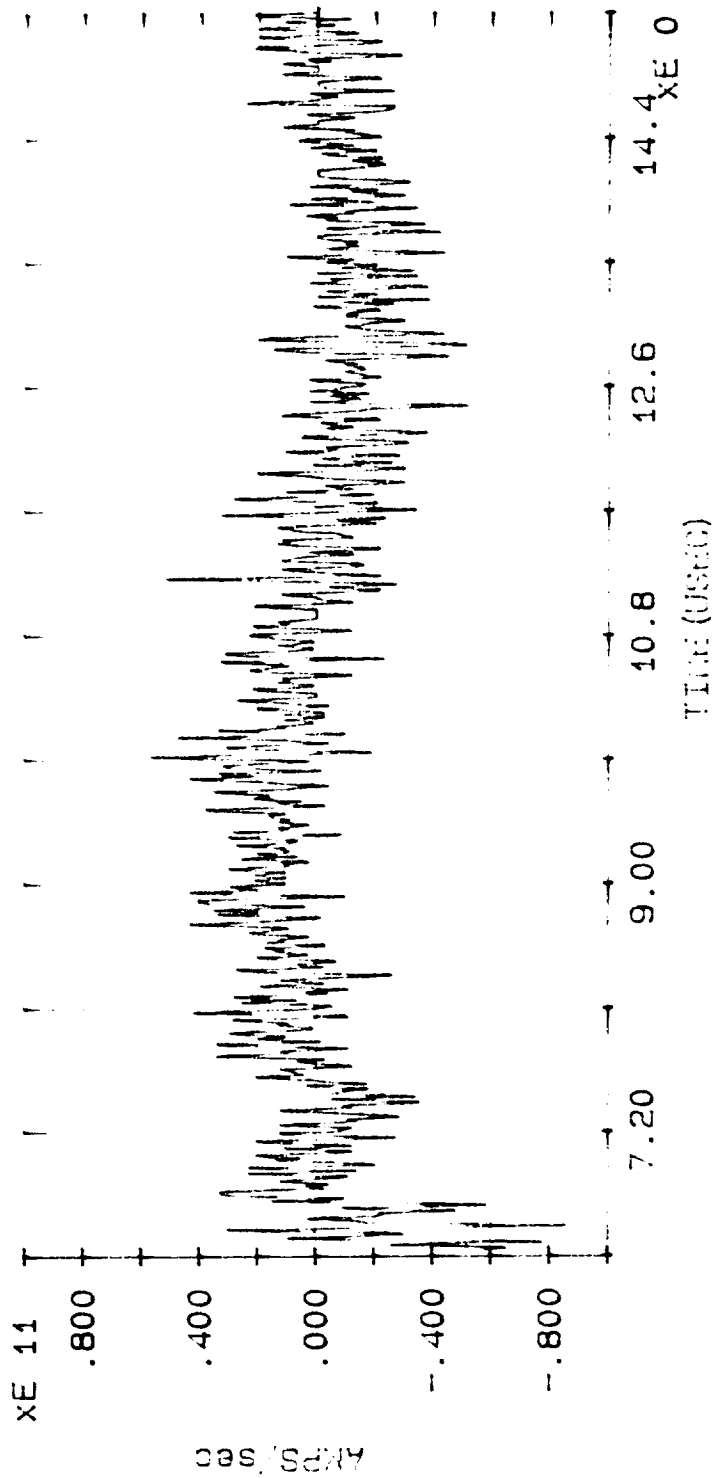
MAX di/dt

DATE: 07/06/90

TIME: 10:11:39.67

FILE: C:\CAT\DATA6\MI341.TST

MAX di/dt = -8.587E10



ORIGINAL PAGE IS
OF POOR QUALITY

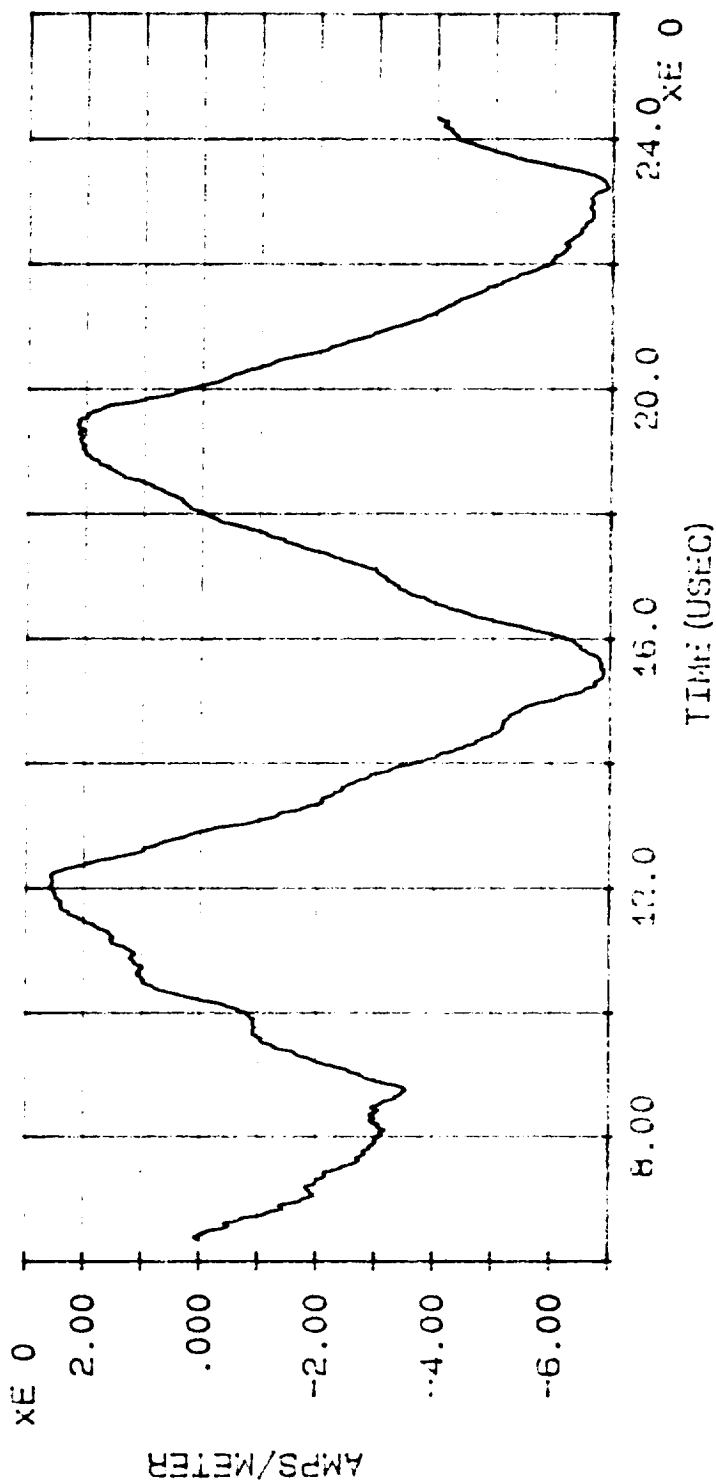
MARX Measurement: Magnetic Field

DATE: 07/05/90

TIME: 17:15:44.24

FILE: C:\CAT\DATA6\MB341.TST

MAX H = -6.921E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #118), PLOT #120, ATTACH POINT #3, DISCHARGE #41

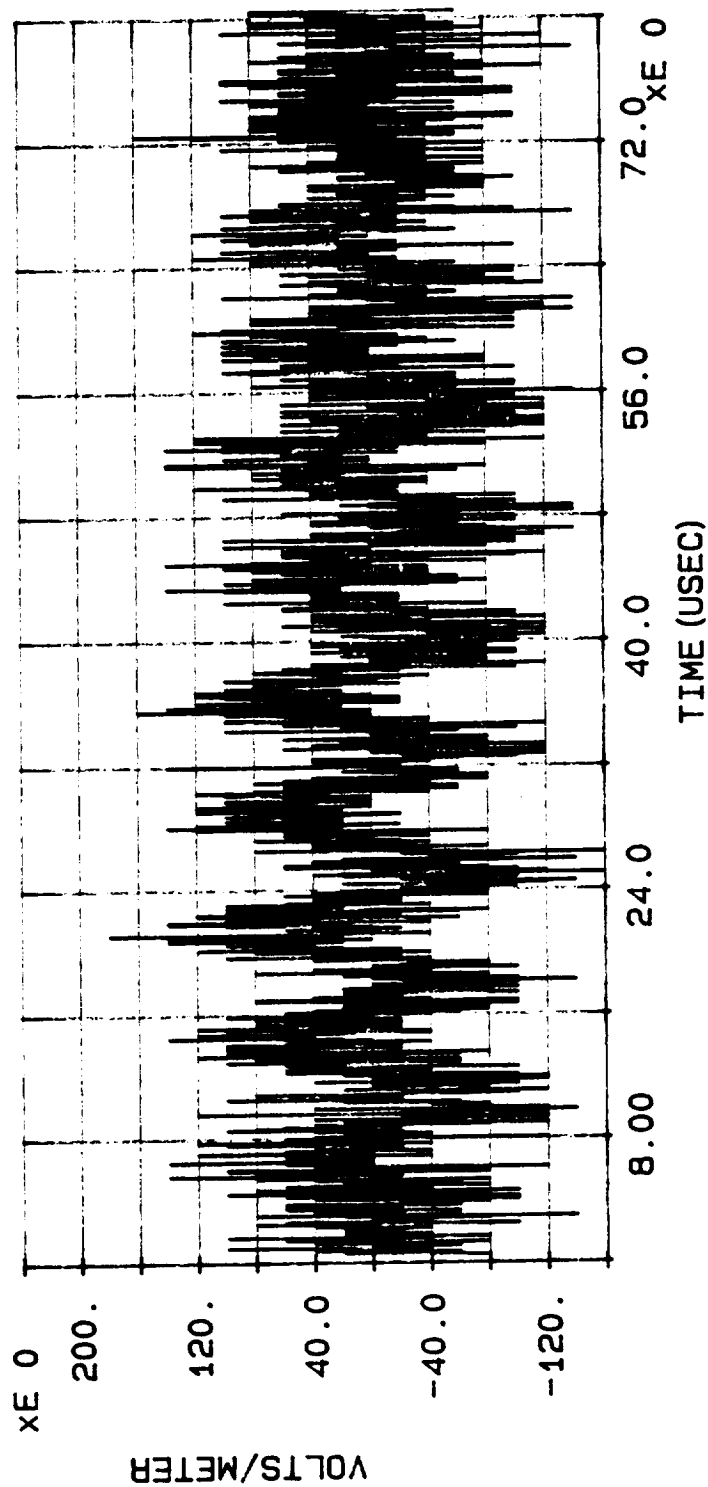
MARX MEASUREMENT: Electric Field

DATE: 07/06/90

TIME: 10:34:33.96

FILE: C:\CAT\DATA6\ME341.TST

MAX E-field = -1.999E2



RADIAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #118), PLOT #121,
ATTACH POINT #3, DISCHARGE #41

MARX MEASUREMENT: INPUT CURRENT

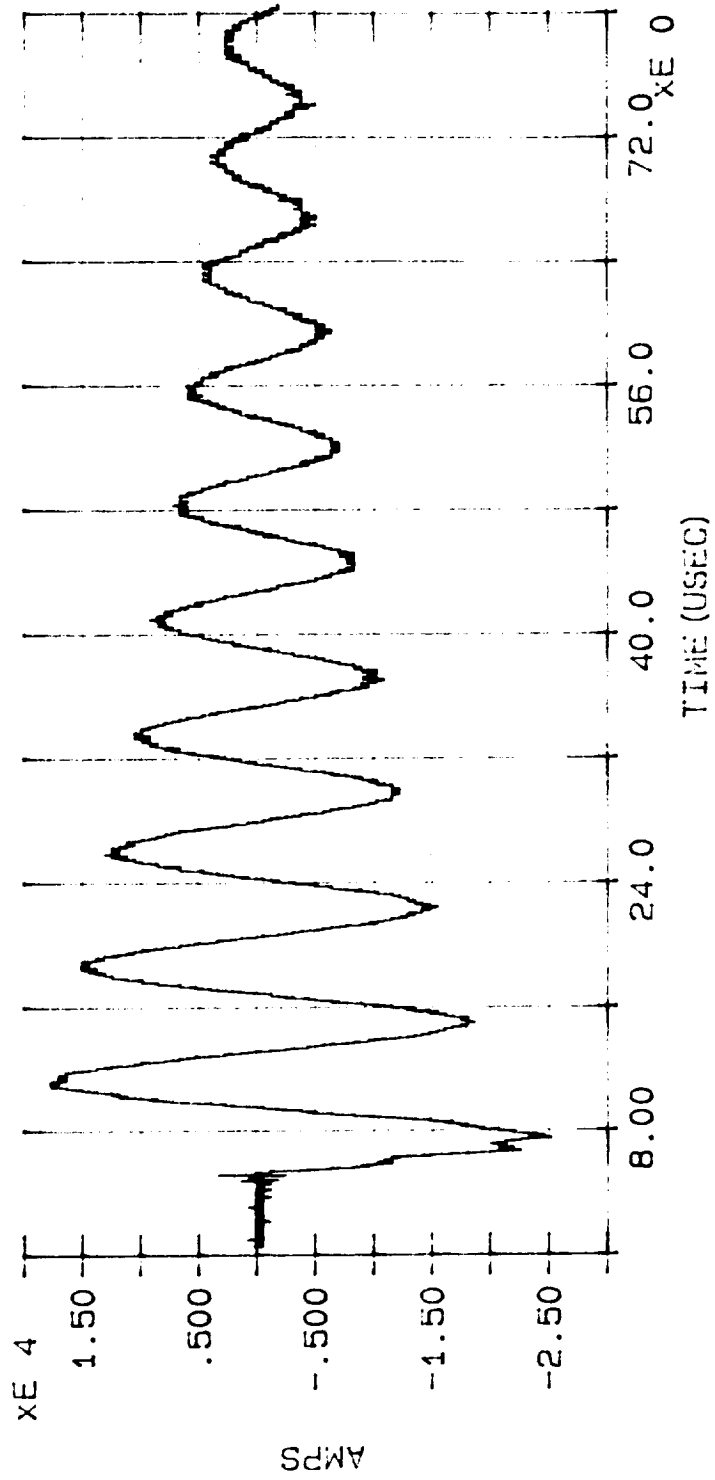
DATE: 07/06/90

TIME: 08:25:08.16

FILE: C:\CAT\DATA6\MI342.TST

MAX CURRENT = $-2.524\text{E}4$

ACTION INTEGRAL = $4.643\text{E}3$



INJECTION CURRENT WAVEFORM, PLOT #122, ATTACH POINT #3, DISCHARGE #42, CONFIGURATION #3

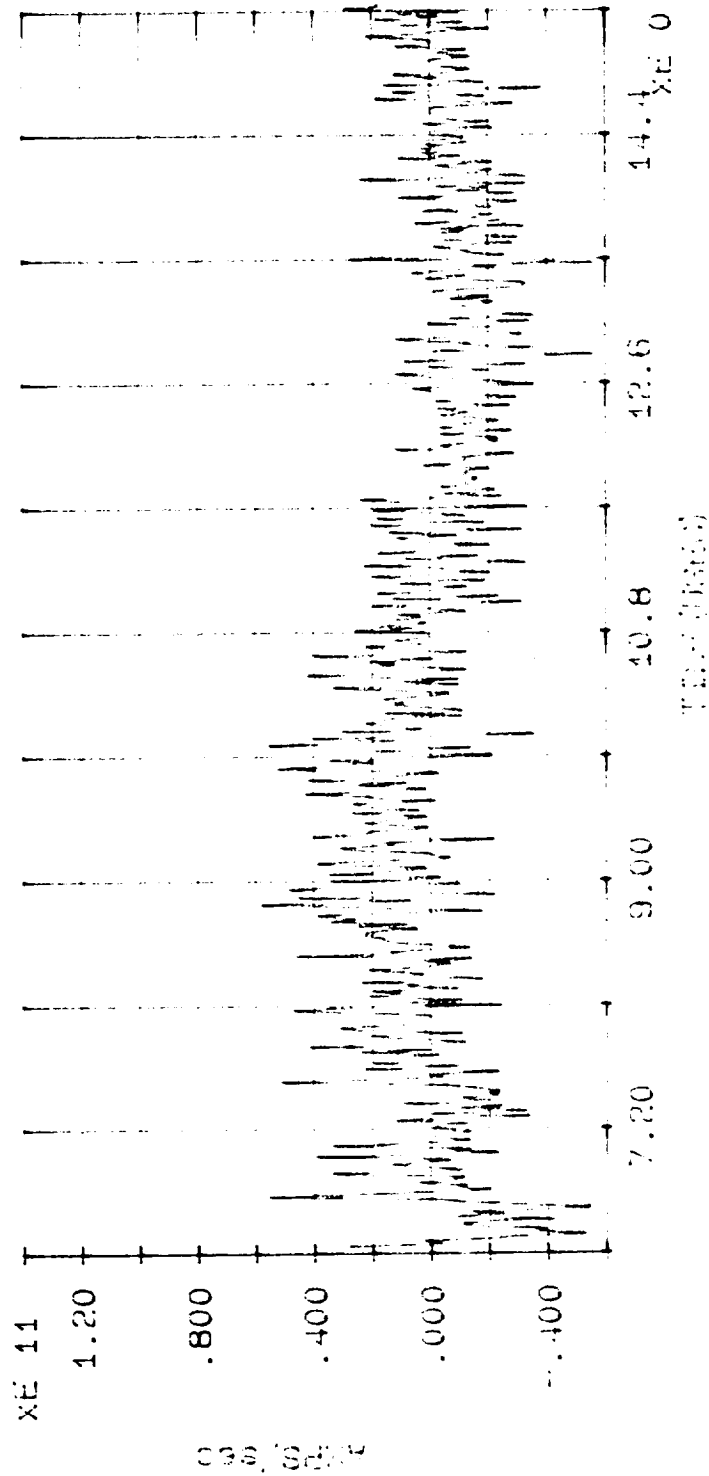
MAX di/dt

DATE: 07/06/90

TIME: 10:15:37.00

FILE: C:\CAT\DATA6\MI342.TST

MAX di/dt = 5.855E10



ORIGINAL PAGE IS
OF POOR QUALITY

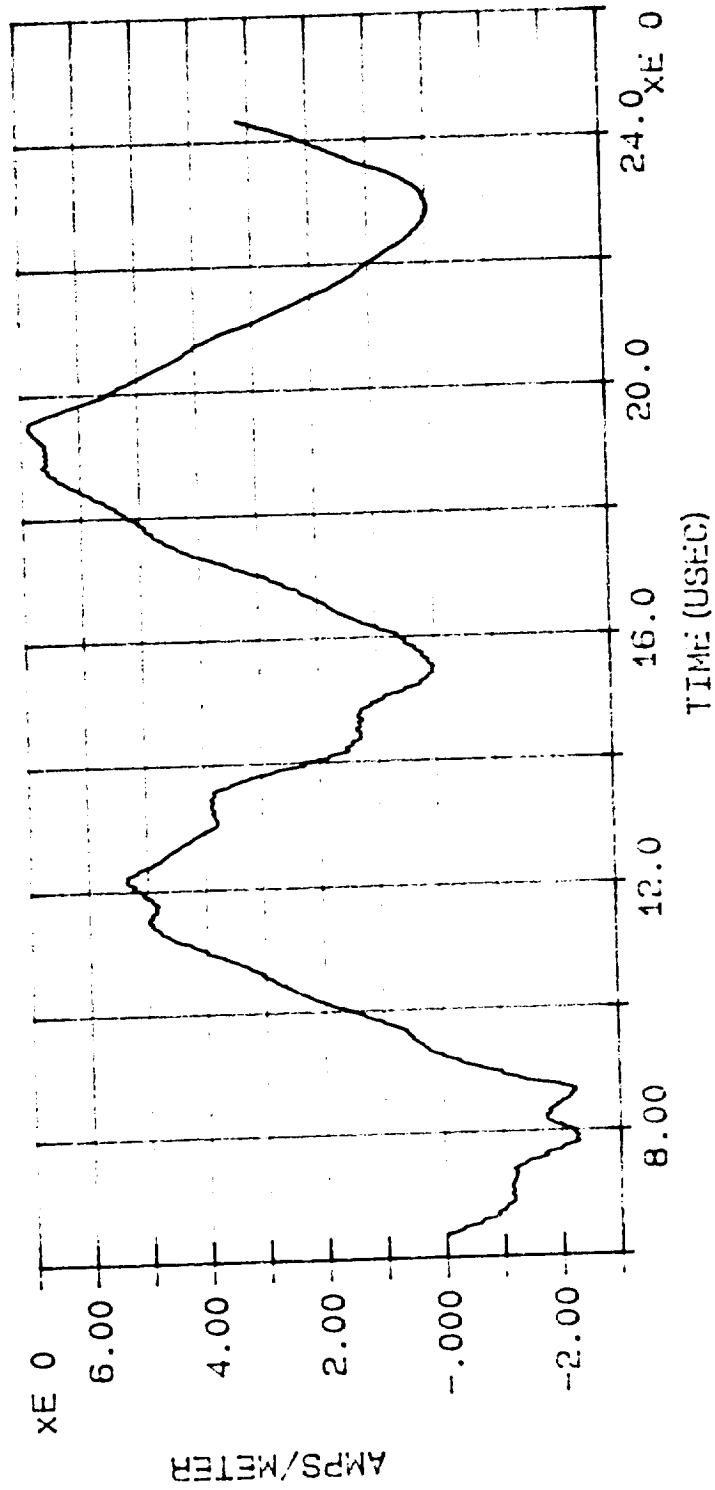
MARX Measurement: Magnetic Field

DATE: 07/05/90

TIME: 17:12:05.25

FILE: C:\CAT\DATA6\MB342.TST

MAX H = 6.902E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #122), PLOT #124,
ATTACH POINT #3, DISCHARGE #42

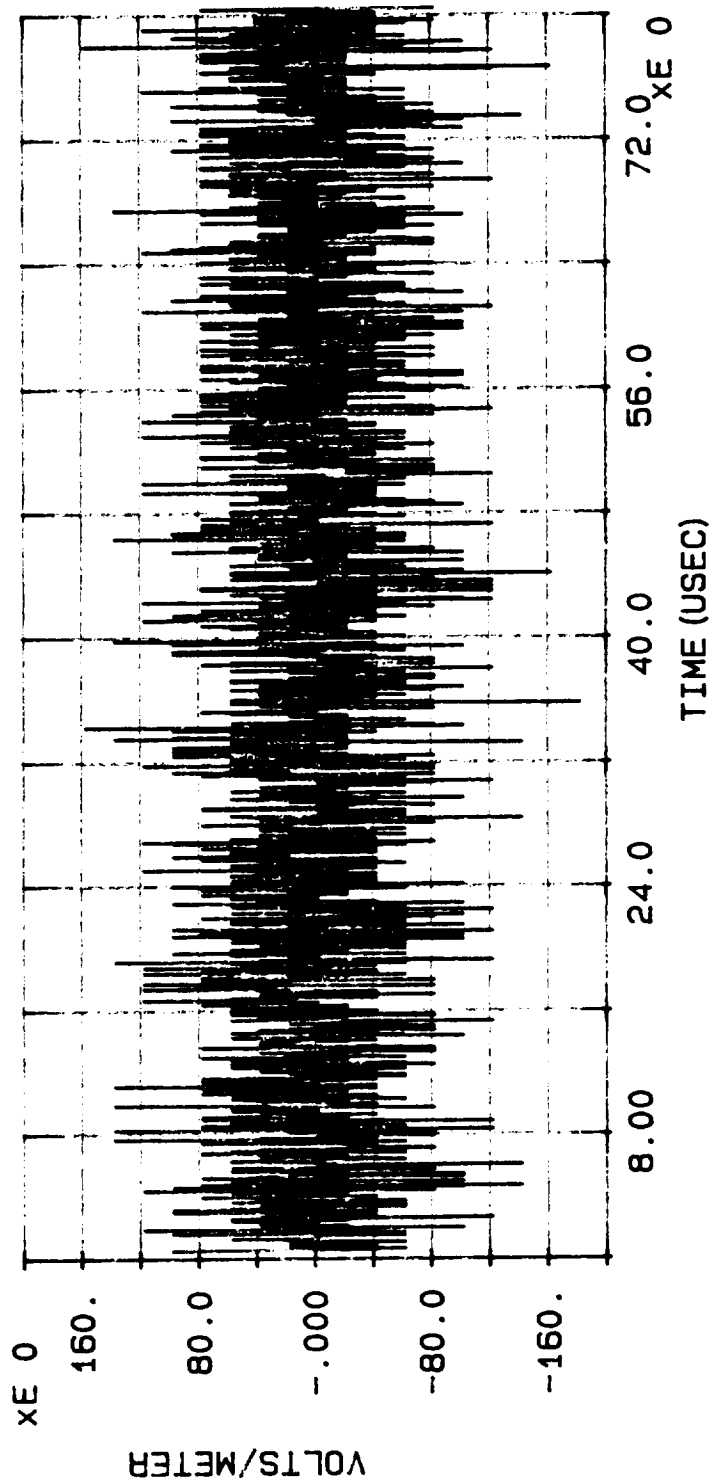
MARX MEASUREMENT: Electric Field

DATE: 07/06/90

TIME: 10: 46: 05.58

FILE: C:\CAT\DATA6\ME342.TST

MAX E-field = -2.023E2



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #122), PLOT #125,
ATTACH POINT #3, DISCHARGE #42

HCB MEASUREMENT: INPUT CURRENT

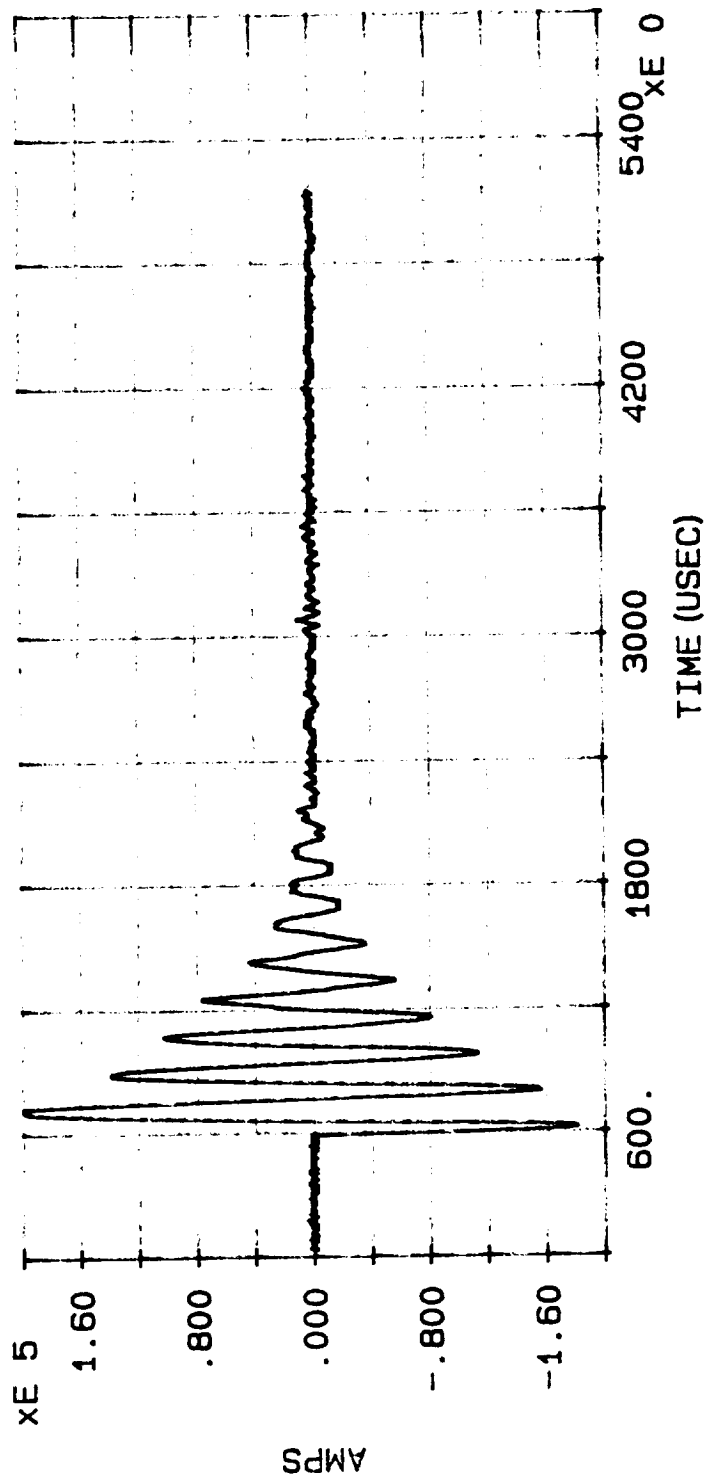
DATE: 07/19/90

TIME: 16:40:54.21

FILE: C:\CAT\DATA6\HI543.TST

MAX CURRENT = 2.017E5

ACTION INTEGRAL = 7.469E6



INJECTION CURRENT WAVEFORM, PLOT #126, ATTACH POINT #5, DISCHARGE #43, CONFIGURATION #2

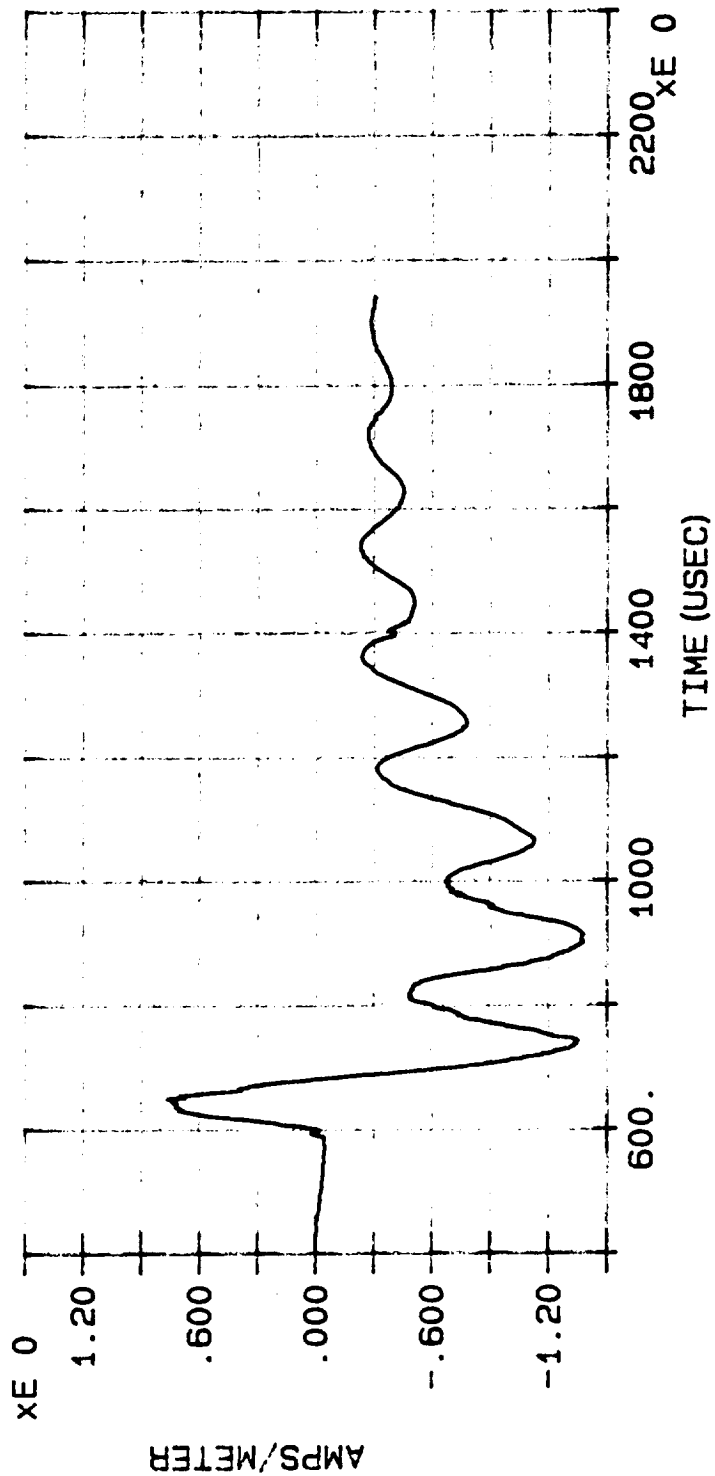
HCB Measurement: Magnetic Field

DATE: 07/19/90

TIME: 15:26:31.68

FILE: C:\CAT\DATA6\HB543.TST

MAX H = -1.377E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #126), PLOT #127,
ATTACH POINT #5, DISCHARGE #43

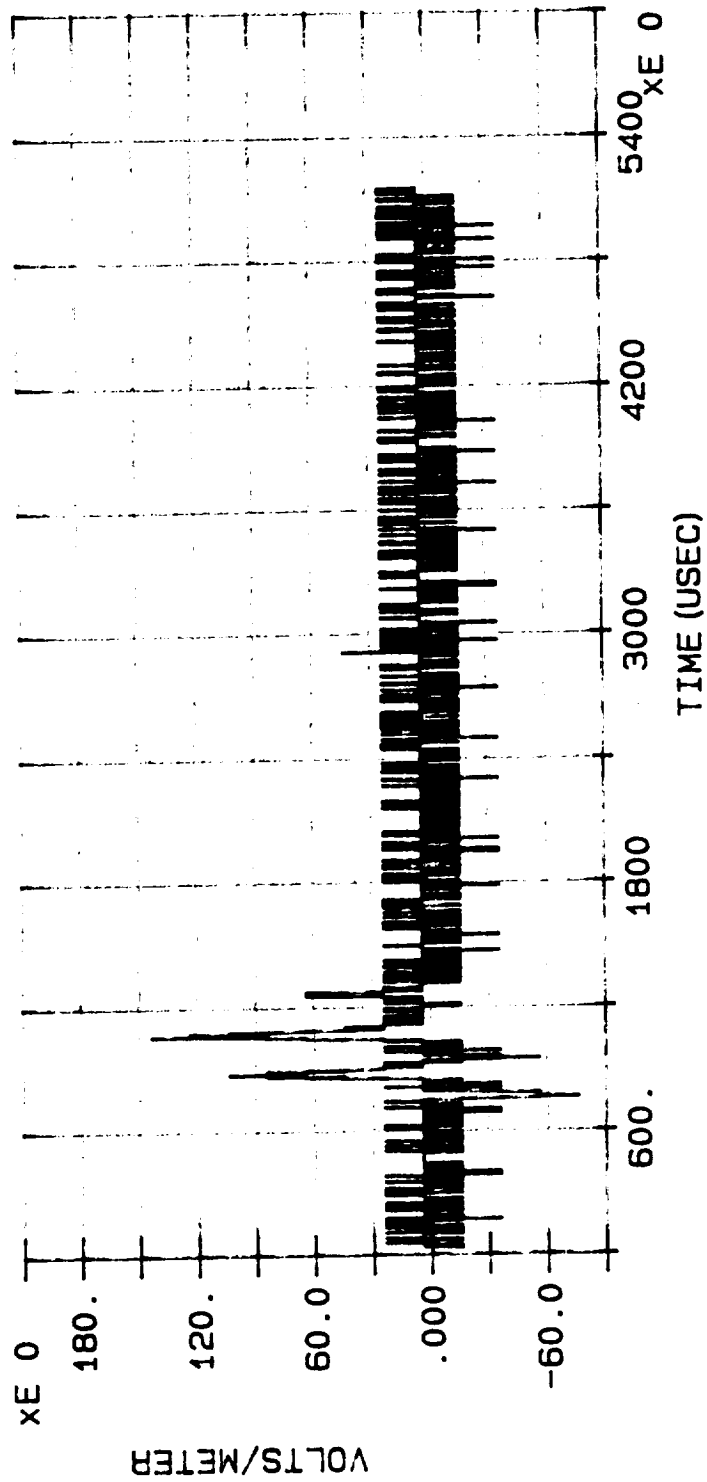
HCB MEASUREMENT: Electric Field

DATE: 07/19/90

TIME: 15:50:13.26

FILE: C:\CAT\DATA6\HE543.TST

MAX E-field = 1.440E2



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #126), PLOT #128,
ATTACH POINT #5, DISCHARGE #43

HCB MEASUREMENT: INPUT CURRENT

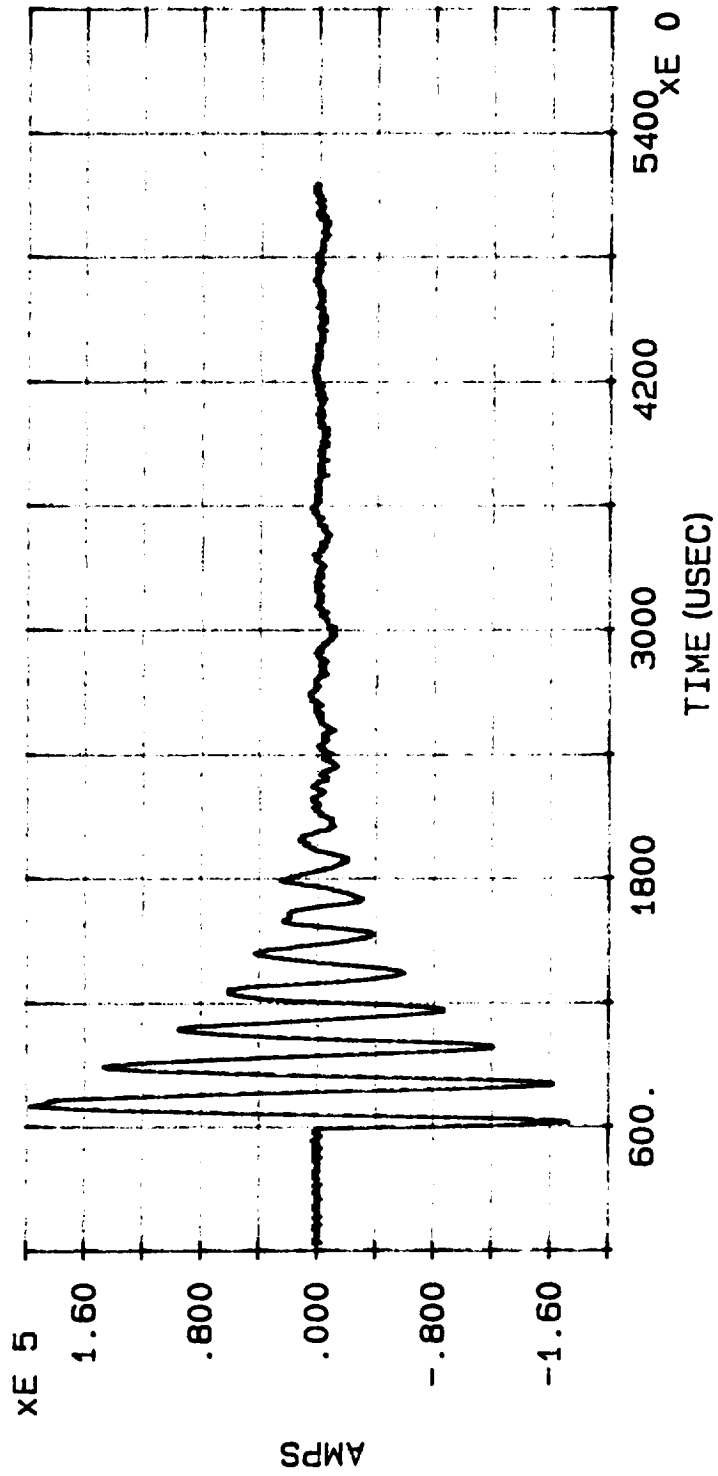
DATE: 07/19/90

TIME: 16:34:06.61

FILE: C:\CAT\DATA6\HI344.TST

MAX CURRENT = 1.974E5

ACTION INTEGRAL = 7.383E6



INJECTION CURRENT WAVEFORM, PLOT #129, ATTACH POINT #3, DISCHARGE #44, CONFIGURATION #2

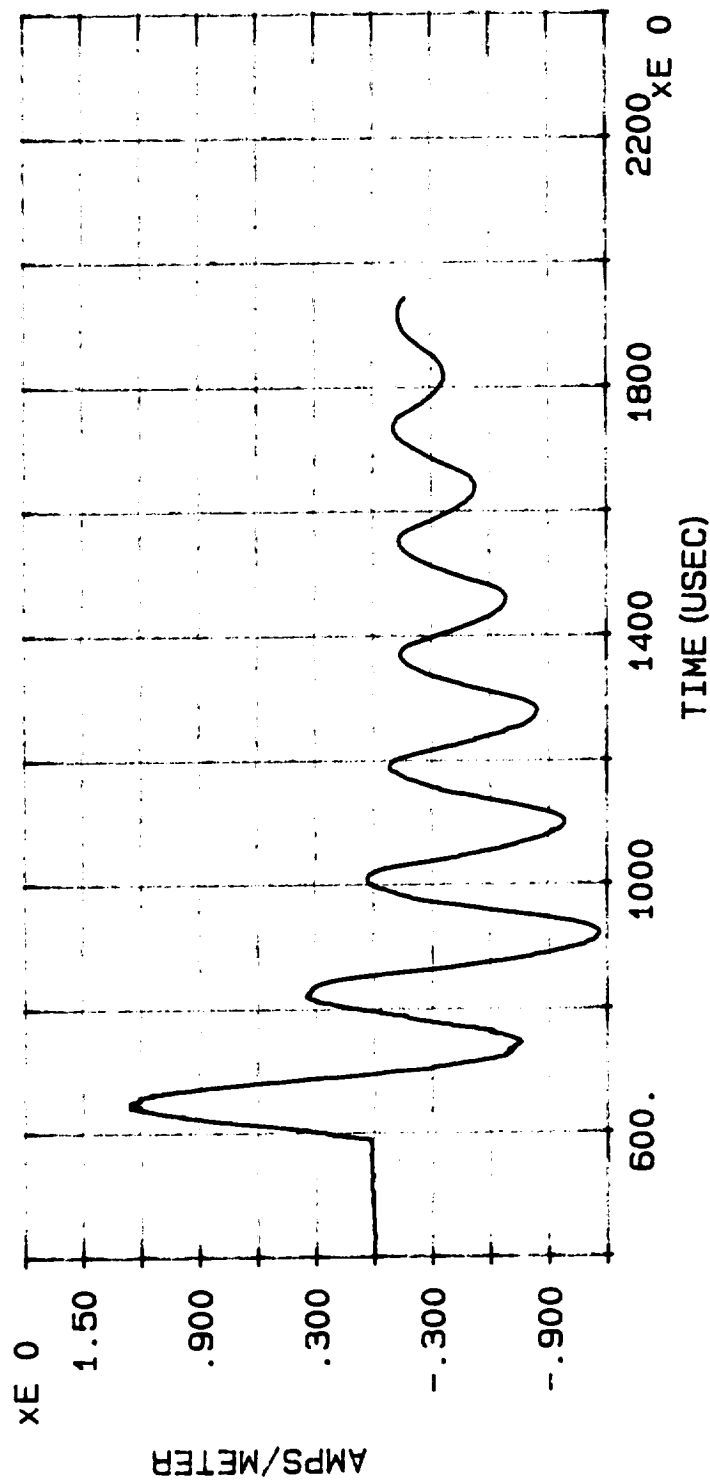
HCB Measurement: Magnetic Field

DATE: 07/19/90

TIME: 15:36:37.73

FILE: C:\CAT\DATA6\HB344.TST

MAX H = 1.261E0



LONGITUDINAL MAGNETIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #129), PLOT #130,
ATTACH POINT #3, DISCHARGE #44

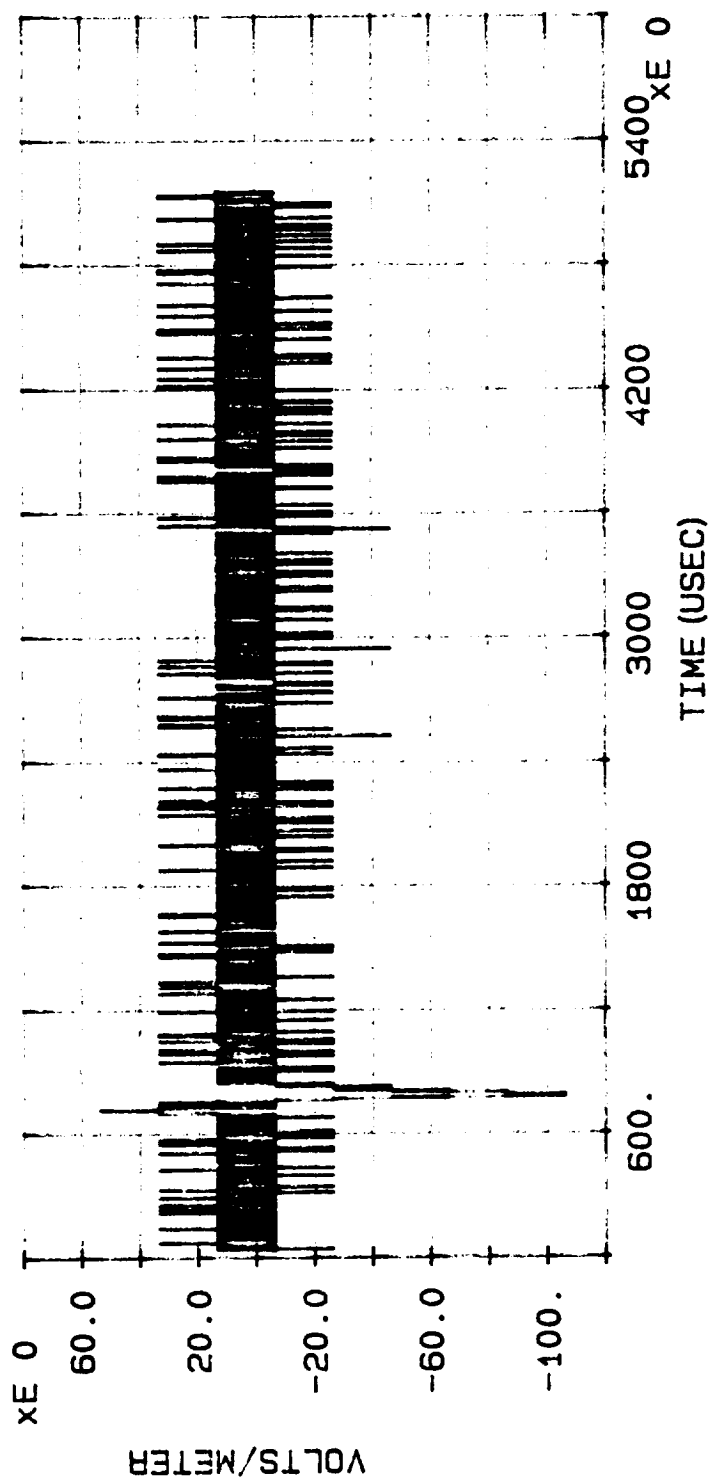
HCB MEASUREMENT: Electric Field

DATE: 07/19/90

TIME: 15:54:57.99

FILE: C:\CAT\DATA6\HE344.TST

MAX E-field = -1.264E2



LONGITUDINAL ELECTRIC FIELD STRENGTH INDUCED BY INJECTION CURRENT WAVEFORM (PLOT #129), PLOT #131,
ATTACH POINT #3, DISCHARGE #44

